

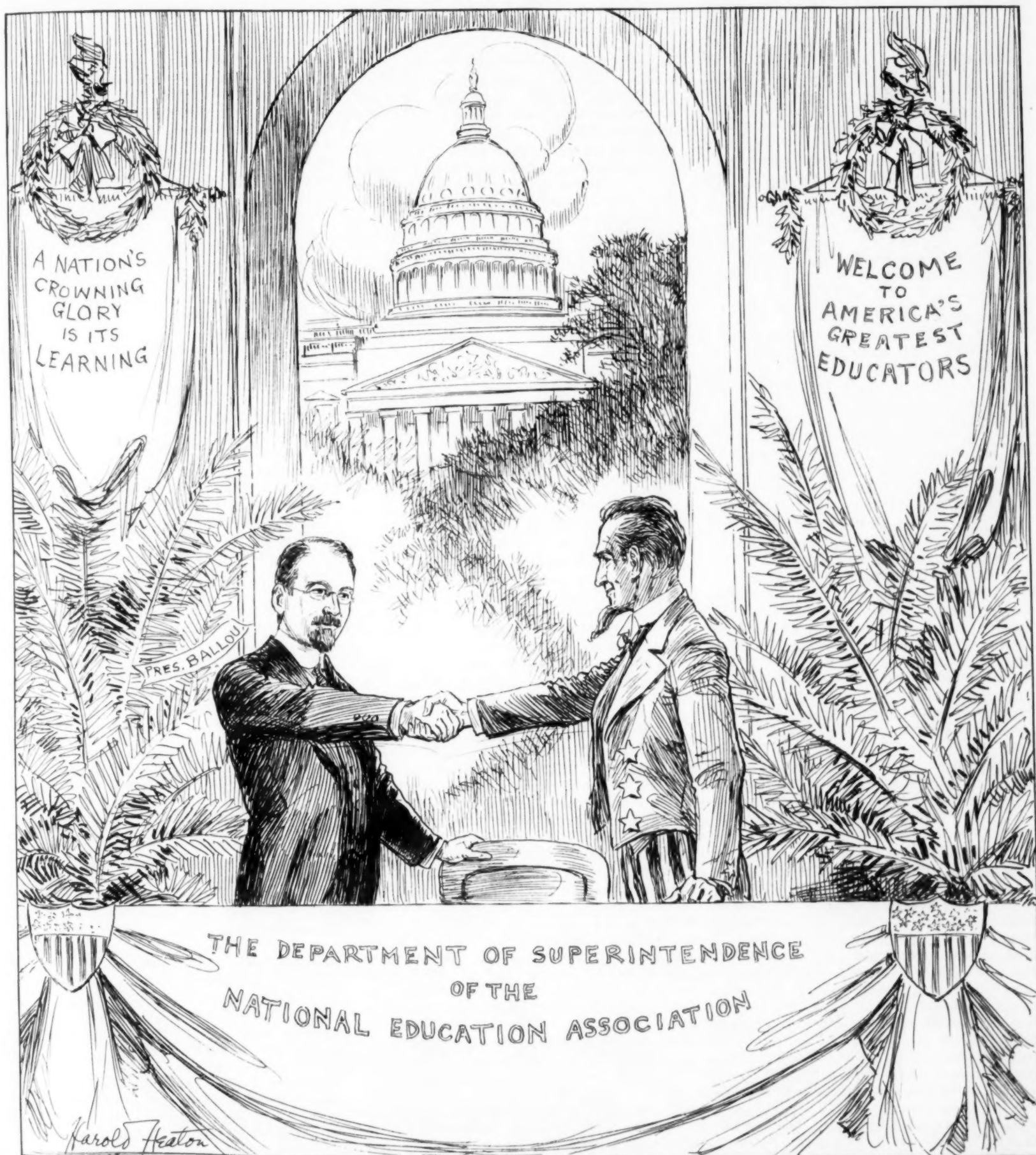
THE AMERICAN School Board Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume LXXII, No. 2

FEBRUARY, 1926

Subscription, \$3.00 the Year



Welcomed to the Nation's Capital

A Quarter of a Century in State School Administration

H. E. Schrammel, Ph.D., Kansas State Teachers' College of Emporia

The first quarter of the present century witnessed numerous significant changes, not only in the administration and organization of large commercial establishments, but also in many of the organizations administering non-commercial affairs. As these enterprises have grown in magnitude, more efficient organizations and methods of administration were sought, and these in turn did their part toward making large organizations greater and more efficient.

The purpose of this article is to note to what extent the administrative organizations of our state educational systems have been improved during the 25 years just passed to meet more efficiently the growing problems arising in them. It is well known that from the beginning American education was as decentralized as was industry at that time. The small local unit had for a long time complete control. Slowly, however, education became recognized as a state function. As such, many powers and duties were from time to time assigned to the state departments of education by the legislatures of the several states, but very little provisions were made for efficient administrative agencies for carrying the more or less laudable functions into practical operation.

Twenty-five years ago all the 48 states and territories of the present sisterhood of states, had state departments of education. Forty-seven of these had at that time in their departments an official, designated by various titles, but functioning as the chief state school official. The remaining state, Delaware, incorporated such an official in its organization in 1913. Although numerous changes have been made in the manner of selection and term of office of this official, all the states have retained this office to the present time.

Twenty-five years ago, 31 states and territories had state boards of education, with general powers, as a part of the state department of education. This number at present is 41. Here again it should be noted that numerous changes have occurred in respect to type of board, selection of members, etc., but only one state—Wisconsin, in 1923—at any time during this period abolished such a board without immediately organizing another one to take its place. This leaves at the present time but seven states with no state board of education with general powers—and several of these have boards with functions limited to specific phases of education. This seems to indicate that a board has come to be almost an established necessity in the efficient administration of a state school system.

A matter of greater significance in respect to the state board of education, however, is the type of board; i. e., whether it is composed of ex-officio members, or appointed members. In 1900, 21 of the 31 state boards of education then in existence, were composed entirely, or mostly, of ex-officio members—usually politically-elected state officials—and only ten entirely, or mostly, of members directly appointed or elected to these positions. In this respect a marked change has taken place in the 25 years. Now, on only twelve of these boards do all, or most, of the members hold ex-officio membership, and on 29, all, or most, hold membership through appointment or direct election.

This is a significant fact which shows unmistakably the trend in this respect. Ex-officio membership upon such boards is rapidly going out of date. Appointment, or election, because of fitness and unselfish interests is gaining the

place it has long deserved. Slowly, but surely, we are coming to realize that if the educational systems of the states are to function efficiently, they must be placed in the hands of disinterested persons who can handle them as would a board of directors the affairs of a large commercial enterprise.

Table I recapitulates the data above enumerated in respect to state boards of education.

TABLE I. COMPARATIVE DATA RESPECTING STATE BOARDS OF EDUCATION IN 1900 AND 1925

	1900	1925
No. Boards with all, or most, members ex officio.....	21	12
No. Boards with all, or most, members appointed or elected.....	10	29
No. States with no general State Board of Education.....	17	7
Total.....	48	48

The increasing number of appointed state board of education memberships is significant in still another direction. In the case of the ex-officio members, of the state official type, their terms in office are brief and the real organization of a board is short-lived. Every two or four years sees almost a complete turnover in the personnel of the board. Some states have even made statutory provision against such officials succeeding themselves in office. Hence, under such a system, no lasting, constructive policies can be formulated and put into operation. The same is true under a system with no board in the state department of education organization, but only a politically-elected or appointed chief state school official. Under an appointed board, however, there is at least the possibility of greater stability. At present the term of office of appointed, or elected, members in 22 states is more than four years. Moreover, in 26 of the states the tenures of appointed, or elected, members overlap, similar to that of United States Senators, so that a major fraction of the board membership always is experienced. This fact is very significant because it provides an opportunity for stability of organization, and the possibility for a continuity of policy and program impossible under any system having either the ex-officio state board of education or no board at all.

In the office of the chief state school official a few significant changes took place since 1900. In the matter of the selection of this official, popular election was then, and is now, the most popular method. Twenty-five years ago thirty states employed this method, and now it is employed by 33. In 1900 the Governor appointed this official in eight states and three territories. This method of selection is at present employed by only six states. Election by the state legislature was in 1900 the method of selection in three states, but no state uses this method now. Selection by the state board of education increased during the quarter century from three to nine. The trend in this respect, therefore, is away from political choice, at least in so far as appointment by governors or legislatures is concerned, and toward a method which is much more highly professional in type. The states which employ the method of selection by the state board of education have boards, practically all of whose members, if not all, are selected for their positions because of merit for this particular position rather than because of "political service rendered", or because they happened to "secure the votes" for some other position. The trend has thus been away from political control toward an administrative organization which establishes general principles and policies, and functions through efficient officials who are likewise chosen for merit. Table II shows the data just enumerated in compact form.

TABLE II. THE NUMBER OF STATES EMPLOYING EACH METHOD OF SELECTING THE CHIEF STATE SCHOOL OFFICIAL IN 1900 AND IN 1925

	1900	1925
Popular election.....	30	33
Appointment by Governor.....	11a	6
Election by Legislature.....	3	..
Appointment by State Board.....	3	9
Total.....	47	48

a—Three under territorial government.

In 1900 only one chief state school official had a term of office longer than four years and 26 had terms shorter than four years. At present seven have terms longer than four years, four of these having indefinite terms, and only seventeen have terms shorter than four years. The tenures of officials selected by the state board of education, on the average, are longer than of those not so selected. Space does not permit the quoting of specific data in this respect, but this type of official, on the average, also possesses higher qualifications and receives a higher salary than do the other officials, especially those selected by popular election. Hence, it appears that states whose chief state school official is appointed by the state board of education, have, on the average, an advantage over other states in the matter of efficiency in organization of the state department of education.

The size of the staff which functions in a state department of education is an important factor which indicates the extent to which the organization is able to render effective service in the state school system. It was noted above that there was a time when laudable functions were assigned the state departments without the necessary agencies being furnished for carrying these into effect. That was largely the case 25 years ago. In 1900 there were 130 persons in all the 48 state departments of education who assisted the chief state school officials and the state boards of education, in states having these, in administering the state educational functions. Nearly one hundred of these, as may be expected, were designated as clerks, bookkeepers, stenographers, and messengers—and only 37 were honored with titles indicating that their standing was somewhat more dignified and their duties more professional in character. The titles used and the number of persons to whom the title was applied follow:

Chief clerk.....	6
Deputy or assistant superintendent (two states each had two).....	20
Supervising agents (one state had 5).....	6
High school inspector.....	2
Grade school inspector.....	1

At the present time the total number of staff assistants of all the states combined is over 1,800. Over one thousand of these are designated with functional titles—as supervisors, directors, specialists, etc.—which classes them as officials with professional skill and standing. In 1900 the largest staff had by any state department of education—namely that of New York—consisted of thirteen assistants. At the present time 36 state departments of education equal or exceed this number. Then, five state departments had no assistant to the chief state school official. Now, the smallest staff consists of seven assistants, which number was equalled or exceeded in 1900 by only six staffs.

From the point of view of having a professional staff in the state department of education, therefore, much has been achieved, on the average, during the past twenty-five years. In many states this achievement is still only in its infancy, and the service of the staffs only perfunctory; but many are organized efficiently and capable of rendering constructive service to their educational systems.

A study of this character would be incomplete if it did not take into consideration the results which directly influence the children of school age. Obviously, an objective study which enumerates, for example, the average length of the school term, the average amount spent per pupil for educational purposes, and so on, is

(Continued on Page 137)

An Argument for Supervision

B. F. Pittenger, School of Education, University of Texas

To assert that any one of the many instructional needs of the schools is paramount—above all others—may seem to convict the asserter of reckless extravagance in speech. It is almost the habit of enthusiastic writers to over-value the subject that occupies their immediate attention; so that if everything for which the position of first importance has been claimed were actually to hold that rank, most of the things of this world would be among the "most important". Needless to say, it is usually much easier to make such a claim than to prove it.

The writer of this paper does not wish to over-value his subject, nor to draw down upon himself the charge of rashness or excessive zeal. He has tried to be, and would like to appear, deliberate. Yet he is about to maintain, earnestly and unqualifiedly, that adequate and efficient instructional supervision is the one unparalleled instructional requirement of our present American school system. This statement is made with full recognition of the fact that there are many other very important needs.

Of these needs, at least three might seem to rival in importance that for more and better supervision. These are the needs for a better curriculum, for better teachers and teaching, and for more certain and adequate financial support. *Per se*, the curricular requirement should outrank any other. The body of subject matter, or activities, which the school offers to its pupils is to the educational process what the menu is to the feast. It is the food, the nourishment, of the educational banquet. All else must be subordinated to the rank of "service". But in fact the curricular problem, while not yet solved, has been more adequately met than has the problem of efficient supervision. The curriculum is an ancient problem, as old as the school itself. Supervision is new and undeveloped. The primary significance of supervision, as compared with the curriculum, is that it is still in its infancy and should be matured quickly.

The need of the schools for more money, and for less uncertainty in financial matters, may be described as a *fundamental* rather than as a *primary* need. It underlies, as a matter of course, the satisfaction of nearly every other need. For this reason it is not coordinate in character with these other needs and not to be considered a rival of them. Those needs are rivals whose individual satisfaction may interfere with the satisfaction of others in the group. In this sense, no competition exists or can exist between financial support and supervision.

The Center of the School Problem

It is commonly said that the teacher is the center of the school problem, and that the need for better teaching is the outstanding need. Given the proper things to teach in the form of a wisely made curriculum, the writer is in accord with this view. But the point of this entire paper is that our best hope, as a nation, for the improvement of teachers and teaching lies in the development of an effective system of instructional supervision. For this reason such supervision is here described as the outstanding, unparalleled requirement.

There are, to be sure, different ways of conceiving of "need". For example, it may be said that the most important need in education today is for a more accurate, scientific approach to all its problems. From the standpoint from which need is thus defined, the writer would agree to this statement. He might even agree to other statements in which the identification of needs was made from still other standpoints. Need is here interpreted, however, in terms of con-

crete elements in the actual school process. Our question is: In which of these elements of the school process exists at present the most urgent necessity for expansion and improvement? Our answer is: *In supervision*.

Instructional supervision may be defined as *the direction, inspection, diagnosis, and improvement of teaching, and the leadership of teachers in service in their individual professional growth and, as a group, toward unity and harmony in work and spirit*. The heart of the school lies in the teaching process. But to speak of teaching today as a "profession" is either to ignore facts or to speak ironically or jocularly. Potentially, there is no line of human endeavor which has greater professional possibilities. There is in the field of teaching a vast body of specialized knowledge and skills, the mastery of which would dignify its possessors and set them apart from people engaged in other callings. Teaching also offers as does almost no other vocation an opportunity for devoted service. In both of these respects its professional potentialities are unlimited. Where it now falls short is in the spirit and qualifications of a large part of the vast army of individuals at present enrolled in its ranks. While within these ranks there are thousands of really professional teachers, unfortunately, there are thousands more who are not even aware of the existence of this specialized knowledge and technique—to say nothing of having mastered it—and whose leading motive is personal emolument. To appreciate the truth of this statement, it is only necessary to contrast the typical teacher with the typical lawyer, doctor, minister, or engineer.

Feminization of Teaching

As to sex: The great majority of the members of these four recognized professions are men. Women are greatly in the minority. Among teachers, however, more than eight out of every ten are women. Among elementary teachers the proportion is about nine out of ten. These figures are exclusive of supervisors, principals, and superintendents. While sex itself is not a professional (or unprofessional) qualification, yet, in a large group of people, it enters very prominently into the determination of other professional qualifications. From the nature of their generally accepted social sphere, women are less likely than are men to take up any vocation except home-making with a view to permanency. It naturally follows that they are less inclined to take these vocations seriously, to undergo long and expensive preliminary training, or to pursue them continuously enough to secure the benefits of large experience. The presence of so many women in the field is also responsible in part for the low salaries paid to teachers; and these relatively low salaries are closely related to deficiencies in preparation and to brevity of service.



The over-feminization of teaching, as compared with the status of the recognized professions, is largely due, in the writer's opinion, to the greater appeal which the work of teaching makes to women than to men, and to the probability that, at least in the elementary field, women are generally more competent than men to do the work. Another factor is that teaching is the one near-professional employment which can now be entered without a long and costly preparation. This over-feminization is both a cause and an effect of low salaries. The low average salary schedule and the fact that teaching does not appeal to men as it does to women have tended toward shortening the terms of service of men in the field. It is not the women only who are likely to give up teaching and turn to other occupations. By the men who enter it, at least at first, it is regarded as a "stepping stone" to more lucrative employments. Thus, the men, as well as the women engaged in teaching, are without the chief incentive to become thoroughly prepared, or otherwise to advance to a true professional level.

As to age: While definite statistics are not available, certainly the average age in every one of the four recognized professions is far above the average age of teachers. The typical doctor, lawyer, and minister is a man in middle life—in the "thirties" and "forties". Engineers will possibly average somewhat younger. The median age for teachers is not more than 25. At least one out of every five is under 21. Teachers in the country are, on the average, several years younger than those in city schools; and elementary teachers are probably younger than high school teachers. The comparative youth of teachers has both a direct and an indirect bearing upon their professional deficiencies. The direct effect is that, being young and consequently immature, they cannot as a class be expected to render the highest type of professional service. The indirect bearing is that their average youth implies that they must be leaving the work of teaching after short periods of service, and thus are certain to lack experience and likely to lack adequate training. More direct evidence of these deficiencies will now be given.

Experience and Tenure Lacking

As to experience: Doctors, lawyers, ministers, and engineers as a rule follow their professions for life. Statistics again are lacking, but it is probably safe to say that the typical member of these professions—again possibly excepting engineering—has practiced for a decade at the least. In a group of more than sixteen thousand rural and village teachers in New York state, the median experience of those in one-room and two-room schools was about five years, and of those in schools of three rooms or more was about six years. That is to say, as many of these teachers had less than five or six years' teaching experience as had more. We are also told that half of the white teachers in North Carolina have taught less than five years, while in Texas "only four out of every ten teachers who began teaching five years ago are now teaching." These figures are representative of practically the whole existing literature on the subject. In nearly every instance of investigation on this problem, the majority of teachers appear to be not only young in years but also relatively new in their contacts with the school.

As to tenure: Doctors and lawyers are fairly stable in their place of practicing. Doctors, at least, generally spend a lifetime in one community. Engineers and ministers are more likely to move about, but even with them, tenure of position is longer than in the case of teachers.

It is generally held that a teacher cannot reach her maximum efficiency in a given place short of two or three years of service. The statistical evidence available shows that the average local tenure of teachers in the United States is hardly two years. The typical teacher, in other words, moves out of one place of service into another before she has become thoroughly adjusted to the first place. From this second place, she removes to a third or else leaves the work of teaching altogether, before another two years have elapsed. What, it may be asked, would be the professional status of doctors, lawyers, ministers, and engineers if the typical member of each of these professions moved into a new place of practice every two or three years?

As to training: This is perhaps the most fundamental test to apply to any group of claimants for professional recognition. With the exception of preaching, and here only in certain denominations, the training requirements for admission into the four generally recognized professions are very high. Admission to the practice of law and medicine is now controlled by statute in nearly every state, and is based upon the completion of a formal course of study equal in length to a standard college course, or even longer. Admission to engineering is perhaps less widely stabilized; but the training requirements are high and are rapidly becoming higher.

Low Entry Requirements

What requirements are made of teachers in the way of general and professional education, before they are permitted to begin to teach? The answer to this question constitutes the most severe indictment that can be made of teaching as an aspirant for professional honors. In Delaware, for example, only one teacher in five was found to hold a normal school or college certificate, while more than three out of every five "held the very lowest grade of certificate issued". In Kentucky, it was shown that four out of five white teachers were without normal school or college training, and that "a large majority of the teachers of Kentucky are poorly educated and not professionally trained." Among the sixteen thousand teachers in New York state mentioned above, of those in one-room and two-room schools, 36 per cent had not completed high school and 66 per cent were without special professional training except that provided in high school classes. Only two per cent of these teachers had received training above the high school. Conditions were better in the larger places, but even there fourteen per cent had not completed high school, and only 67 per cent had had more training.

The North Carolina school survey commission reported that at least half of all high school teachers and approximately four-fifths of all white elementary teachers were "without adequate preparation". In Tennessee, one teacher out of every five had never even entered high school, one out of every two had not completed high school, and only one in every four had taken work beyond the high school level. A limited study of teacher training in Texas seems to show that at least a half of the entire force is without any standard college training.

The data presented above have had to do in the main with teachers in rural and village schools. Separate consideration of teachers in the larger cities shows, as a rule, distinctly superior conditions. Thus 84 per cent of the elementary teachers in Cleveland were found to be normal trained, and 78 per cent of the high school teachers to be college trained. Similar conditions were found in Grand Rapids, Michigan, although attention was called in the latter city to deficiencies in the preparation of many kindergarten teachers, of teachers of special subjects, and of teachers in the first and sixth grades.

The facts just presented are but samples of a large accumulation from the school surveys and other related literature. But they are fairly typical. The entire mass of data will abundantly support the following statements:

(1) The typical rural school teacher, the country over, is hardly more than a high school graduate, and is without distinctively professional preparation of any sort.

(2) A large proportion of the elementary teachers in village schools and a considerable proportion of those in city schools are without the modicum of two years normal training, or its equivalent, generally regarded as the minimum requirement for their work.

(3) From a quarter to a half of the high school teaching staff in the several states has not completed college or done equivalent academic work, and a still larger proportion is without any distinctively professional training or high school instruction.

Are Teachers Professional People?

In the light of these facts as to the sex, age, experience, tenure, and professional preparation of teachers, it seems complimentary almost to the point of flattery to speak of them in the mass as "professional" people. We do not lose sight of this statement of the thousands of well-trained, experienced, and consecrated teachers who serve our better schools. These men and women are worthy of special commendation for attaining such heights among a body of workers whose average attainment is so low. Neither do we lose sight of the fact that conditions are improving. But every thoughtful reader will agree that to lift at least half a million teachers (more than half of the nation's present force) from the level that has been described to the much higher level of true professional attainment is a project that will entail an enormous expenditure of work and time and money.

Nevertheless, this is the approach to the solution of the problem that is most generally recognized today. Nearly every serious student urges an immediate and persistent effort to professionalize all teachers; i. e., to effect a change from an average condition of youth, inexperience, and lack of training to a condition of experienced maturity, properly prepared, at the same time raising the average native qualities of the personnel. This plan now has the endorsement of most writers on the subject and is the major line of effort actually put forth by the different states in their attempts to improve their teaching. We are told by a reputable authority that "education consists first of all in the superior quality and skill of its individual teachers", and that

America, with its hundred millions of people, needs upwards of three-quarters of a million men and women to represent her with the childhood and youth of the nation in a deliberate and thorough educative process. If * * * democracy is permanently to hold the field, it will be a democracy with sufficient wisdom to confide this, its most responsible task, to its most competent citizens, and to prepare them thoroughly for its safe discharge * * *

All institutional education for the teaching profession should be placed clearly upon a collegiate footing and organized under a single competent direction as a part of the state university, where one exists, parallel with medical, legal, engineering, and other similar divisions of higher education. * * * "Normal" schools should drop that name, and as professional colleges of education should become an acknowledged part of the greater university whole simply because they are a part of the state's system of higher education.¹

The proposals set forth in this quotation may sound extreme. They imply that every teacher employed in public schools should be a full-fledged college graduate, or the equivalent of such in the field of professional education. While he does not say, so, doubtless the author

of these statements has also in mind a permanency of tenure and consequent maturity among teachers commensurate with these large training requirements. His complete implication is that all teachers should be elevated to the full professional status of practitioners in medicine and law.

Expense of Professionalizing Teaching

While these statements are more frank and unqualified than writers generally permit themselves to make, yet they do not exaggerate the ideal objective now in the minds of most educators. Every discussion, and there are many, of the problem of "professionalizing" teachers, suggests more or less clearly that in the background of its author's mind lies this ideal. But the present writer wonders whether the authors of these discussions have seriously considered just what their program will involve.

We need not pause upon the suggestion that our teachers should be chosen from among our "most competent citizens". Probably its meaning is not so extravagant as it sounds; but if the word "more" had been substituted for the word "most" it would have been a better statement. The real difficulty is met in the suggestion, with all of its implications, that teachers should be as thoroughly trained in advance of the practice of their professions as are the members of other professional groups. Here we encounter the problem of expense—relatively a minor one—and problems connected with the present lack of permanency in the vocation.

To place all teachers upon a true professional level in point of training would require an immediate large increase in the funds available for education, either to enlarge the scope and facilities of our existing training institutions, or to provide salaries that would justify teachers in taking such extensive professional courses; or, possibly, both. The second of these increases threatens at first glance to be much greater than the first. In 1920 U. S. Commissioner Claxton estimated that teachers' salaries should be raised to an average level of \$2,000 a year. At present living prices, this amount is utterly insufficient to attract and hold a permanent teaching staff. Yet to carry out this one aspect of the proposal would mean almost to double our present public education bill.

The extent of the other cost increase is very hard to estimate. It would depend necessarily upon the number of trained teachers to be provided annually. This in turn would depend upon the annual loss from the ranks of the profession, and upon the increase in the total number of teachers required to staff the schools. At present it is estimated that this annual "turn-over" amounts to nearly a quarter of the entire staff. The entire staff, in other words, "turns over" about every four years. The longer service of some individuals is compensated by the shorter service of others.

Assuming that there would be no change in this turn-over, then in order to keep up a staff of adequately trained teachers, the training institutions would have to graduate each year around 200,000 teachers. This number would represent only the graduating class. If the training courses were four years long (the shortest possible under the program here described) then there must be three other classes—freshman, sophomore, and junior—of at least equal numbers each. In 1920, all of the publicly supported higher institutions in the nation enrolled about 330,000 students. Under this new program, the teacher-training institutions alone would have to enroll from two to three times this number. The increase in costs would have to be proportional.

Can Permanency Be Realized?

The only hope under such a program for lessening this required increase in the cost of training would be to reduce the annual turn-over by lengthening the average term of service. Doubt-

¹See Bulletin 14 of the Carnegie Foundation for the Advancement of Teaching, 1920, pages 9 and 12. Italics ours.

less increased average training would be accompanied by lengthened average periods of service. The increase in salaries necessary to stimulate teachers to acquire the greater training would be a factor working in the same direction. To the extent that increased salaries tended to secure longer service, the annual turn-over and the training expense resulting from it would be reduced. It is not fair, therefore, to charge against the proposed program both of the financial increases discussed above. Possibly our present training facilities could fairly adequately take care of the demand if all teachers became permanent members of the profession.

But is such permanency on the part of all teachers possible of realization, at least within any reasonable period of time ahead? Here we run directly into the fact that nine out of every ten of our great army of teachers are women. Will any body of nearly seven hundred thousand women, especially of the type most desirable as teachers, devote themselves individually to life-long service in this non-domestic employment? Ought they to do so? Such a policy would mean that these women must dedicate themselves to this service and surrender all other ambitions at the very beginning of their careers, early enough to complete the required course of training before embarking on their life work. And if women will not do this, where will be found the men? Here we encounter another question: Ought men wholly, or even largely, to displace women in the field of teaching?

The whole situation can be summarized in another way in this question: Ought the field of teaching to be closed, and can it be closed, against all men and women except those expecting to devote their entire lives to its pursuit? To demand a full professional preparatory course of all beginners, commensurate with that required of beginners in law and medicine, would practically mean to close its doors upon all others. Generally speaking, only those expecting to follow it to the end could afford, or would even desire, to undergo this preliminary training. The exceptions would be as rare as they are in the other professional fields.

The writer seriously believes that the plan that has been outlined is, for the reasons just given, an utterly impractical method for securing any approach to universally efficient teaching in all our public schools. It is a worthy ideal objective, to be worked toward gradually and persistently. But, either as the sole or major approach to the urgent problem before us, he believes that it is utterly incompetent.

Supervision as the Solution

A more practicable approach to an early solution of this problem, in the present writer's view, is to provide a competent and fully adequate staff of instructional supervisors. To make clear and emphatic the value of supervision at this point is the sole purpose for which this paper has been written. And it is the outstanding service that can be rendered here by supervision that has led us to describe it as a paramount need.

Let us frankly face the facts that, for a long time to come, there will be a large annual loss from the ranks of teachers; salaries will be too small to justify or stimulate adequate advance training on the part of most; teacher-training institutions will be inadequate to meet the demands of an ideal program; and in consequence most teachers will be very insufficiently prepared. But let us also remember that within this large army of poorly prepared teachers, who are constantly being exchanged for others little better prepared, there is a nucleus of thoroughly professionalized men and women who are permanent assets of the profession and adequately trained for it. Let our main endeavor be to enlarge this nucleus as much as possible and then to make as much use of it as we can

in guiding and directing the labors of the rest. In other words, let us in the future urge the necessity of providing sufficient and efficient supervision as aggressively as, in the past, we have urged the need for more trained teachers. Then let our professional leaders and our training institutions devote their primary efforts to supplying the resultant demand. Let our first emphasis in school financing go upon this problem; likewise in our instructional reorganization. Let us, in future, talk and think more about putting an efficient, trained supervisor into intimate contact with every teacher in rural as well as in city schools. "More and better supervision" could well become a slogan, and would prove in the end the most practicable road to the goal of better teaching.

DREAMS

Frances Wright Turner

When dreams come in the twilight
To take me back again
Counting the milestones, one by one,
That border life's long lane,
I see myself, a little lad,
Freckled, and patched, and brown,
But, O, I know no happier boy
Was ever in our town.

Each milestone had its roses:
The old grey house at home,
The tall, white church spire in the trees,
The quaint, old court house dome,
The morning-glories clustering,
The singing birds at dawn,
The trout-brook in the alder lot,
And the sounding dinner horn.

But dearer than all else, I think,
Except my mother's smile,
Was the little schoolhouse on the hill,
Beyond the wood, and stile.
Its battered seats and blackboard,
Its rough and knotted floor
Are as fragrant in my memory
As the roses round its door.

We had a baseball diamond
Smooth-worn by many feet,
And behind, a field and piney woods
With fragrant carpet, sweet,
And the scent of brown, pine needles
Drifts back across the years
To make my memories sweeter
Under the mist of tears.

And when the shadows lengthen
And the path ahead grows dim,
I shall catch, beneath my starlight,
Just a little backward glim.
For the vision that will come to me,
The last one I shall see,
Will be the schoolhouse on the hill
Just as it used to be.

It is not contended that this solution of the problem would be so generally satisfactory as would the solution through the individual professionalizing of all teachers. Its advantage is that it is a practicable solution, while the other, for the present, is not. A sufficiently large permanent personnel is now available, if it were trained for this task and turned into this channel of activity. Our present training facilities would suffice to provide the necessary training, with energy to spare. A moderate increase in our educational appropriations would pay the salary increases required for these people. The principal difficulty is to give currency to the idea among teachers, educational leaders, and the general public, and to secure the cordial support of all these parties. But if this could be accomplished, there would immediately come a rapid development of supervisory organization in rural, village, and city schools. Side by side with this development would come the expansion of facilities for training supervisors in our teacher training institutions. Doubtless many trained and experienced teachers could be prepared for this work without leaving their present places of employment. There would be needed a simultaneous development of support for the plan, of supervisory organization, of

motive or stimulation, and of opportunity for preparation. In all of these respects, however, the plan is in no way different from the plan of professionalizing every teacher; but it is a more practicable plan, because it involves all of these features on a much smaller scale.

Leadership of Supervision

Furthermore, adoption of this plan of improving teaching through the development of supervision does not require that we give up the larger plan of professionalizing teachers. On the other hand, it might prove to be the most direct route to this more distant goal. Many teachers—perhaps most of them—would seek a larger training if they could be made to see its advantages. They would likewise stay in teaching longer if they could be made to respect it, enjoy it, and appreciate its possibilities. It would seem that the best way to stimulate this growth toward permanency and in preparation would be to bring all teachers under the influence and leadership of efficient supervisors. An essential early step toward the professionalization of teaching is this expansion of the supervisory staff.

Not everything that boasts the name of supervision, to be sure, could serve in any sense as a substitute for good pre-service training of teachers. But, also, not everything that bears the name of teacher-training is an adequate substitute for supervision. The ideal, no doubt, would be found in the combination of proper preliminary training with adequate in-service supervision. Our contention has been that the first member of this combination, to say nothing of the combination *in toto*, is impracticable at present; but that the second member is practicable, and would in itself meet the issue satisfactorily. Those who doubt the ability of well-directed supervision materially to improve the teaching process are referred to such studies of the problem as those of Pittman² and Burris³.

Let us suppose that our national government should suddenly decide to take over our public schools and administer them from Washington. Its first step would probably be to select a national superintendent. Suppose the government should decide to employ a foreigner of outstanding ability as an organizer and administrator, because of his freedom from the prepossessions and traditions of our own educators. Such a man, coming into contact with our educational situation with fresh, clear eyes, would possibly say:

"Here is a mammoth organization which exists for the sole purpose of teaching children. I observe that the great bulk of those who are expected to do the teaching are not really expert in their calling; indeed, they are very far from it. But I also observe among them a group of really expert teachers, who have been trained in modern school procedure and who have been refined in the mill of experience. My first task is clear to me. I will make supervisors of these people; enough supervisors so that every teacher in every classroom can enjoy the help and guidance of such a person. I will begin by encouraging these selected teachers to train themselves for supervision, and by opening up positions which they may fill when trained. When I have done, this, I will see what can be done in the way of providing larger and better preliminary preparation for the rest."

We do not, for the present certainly, want our national government to take over our schools. We do not want them to be administered from Washington. We do not want a superintendent

²Pittman, M. S.; *The Value of School Supervision*. Warwick and York, Baltimore, 1921. See pp. 6-8.

³Burris, B. J.; *Preliminary Report on Supervision in County Demonstrations*. Indiana State Department of Public Instruction, Education Bulletin No. 74, Indianapolis, Indiana, 1924. See pp. 21-4.

Selection and Retention of Teachers

F. J. Herrick, President, Board of Education, Mitchell, South Dakota

However much we, as school board members, may pride ourselves on our necessity to the well-being of our respective school districts, or however superintendents may feel that the schools are the result of their labor and their management, yet the fact remains that with the teachers lie their real success or failure. No school board has reached its possibilities in management and oversight, and no superintendent has placed himself in the front rank of his profession, until there is in the school under his charge an efficient, contented, trained and cooperating corps of teachers. The importance of this subject deserves, therefore, the careful and continued consideration of school officials.

The topic naturally falls into two principal divisions: First, how to secure teachers who are thoroughly prepared, whose personality enables them to interpret the message into the language of the pupil, and whose faithfulness insures proportionate results; second, having secured such a group of teachers, how may they be retained with the lowest per cent possible of turnover.

It seems to me there can be but one answer to the question who is to make the selection. School board members have their time and attention shared by many other interests, while the superintendent's sole business is the conduct of the schools, and the teachers he is to work with are a very vital part of that system. The superintendent, therefore, should select the teachers with the approval and endorsement of the board. He should base this selection on records of previous work done, on preparation, giving due weight to where and how obtained, and on the opinions of those who have seen and known the applicant in former positions. In this connection there should be the utmost frankness on the part of superintendents and school board members in answering inquiries regarding teachers. We all shrink from saying an unkind or hurtful thing of anyone who has been associated with us and yet, while we may be glad to emphasize all his good qualities, common honesty as well as courtesy, will compel us to mention also any real weaknesses or defects we may know him to possess. One phase of this selection process is the deciding on how many and under what conditions home girls shall be employed as teachers. It seems to be pretty generally decided that at least two years' teaching experience in an outside school is good training for the young teacher. In this way she forms the habit of meeting and settling the difficulties she is bound to encounter for herself, rather than taking them home to her parents or friends. When she has "found her own feet" and then comes back into her home community she is prepared to do good work.

In choosing teachers from a number of applicants it is comparatively easy to weigh and measure the tangible qualities, such as preparation and length of experience, but it is much more difficult to judge in advance of those intangible qualities that are really more important—that something that enables a successful teacher day after day to get across to her pupils the real purpose and meaning of her subject and in a way that calls forth in the pupil a responsive enthusiasm and zeal.

In many schools the choice of teachers is largely influenced by the religious or denominational affiliations of the applicant. It is probably essential that all, or even a very large majority, of the teachers do not belong to one sect or denomination, but other than an avoidance of this source of trouble it would seem that little, or better, no attention be given to just what particular church a teacher may wish to attend. It is to be devoutly hoped that in



F. J. HERRICK.
President of the Board of Education,
Mitchell, S. Dak.

these days of increased and increasing liberality in regard to the opinions and beliefs of others that the schools should and could be run without any of the petty jealousy, spite, and intolerance that have in so many instances made school history in the past.

Now let us suppose we have secured an ideal company of teachers for our schools, what must we do to keep them in our employ and to avoid, so far as possible, frequent and extensive changes? In industrial establishments much scientific research has been made to determine the cause and, so far as possible, prevent a high percentage of labor turnover. It has been found that the decreased efficiency, the cost of necessary instruction, and the increase of error are all items in a large total of additional overhead. Why is not this at least equally true in an organization such as our school system?

In securing permanency, perhaps first in importance in the minds of the teachers is the matter of salary. Here we have a question where the board is under considerable exerted pressure from both sides. It is probably unnecessary to mention to you the various committees and parties representing taxpayers that undoubtedly we have all met. On the other side, the teachers with their increasing necessary expenses and their increasing wants and desires are constantly seeking an increased income. It is very much to the credit of our South Dakota teachers that they have not resorted to the labor-union methods of demanding increased or fixed salaries. It has been our experience that the most adequate solution of this problem is a salary schedule, which is a systematic way of settling not only the salary for this school year but also given assurance of what may be expected in future years. This salary schedule carries a definite rate of advance in pay, up to a certain maximum, and has proved a great stabilizer in keeping teachers so that they may enjoy the cumulative benefits of the schedule and also keeping them contented in the assurance that they are receiving as much pay as other teachers similarly equipped. The immediate effect of a salary schedule will undoubtedly be an apparent increase in the total salary budget. I say apparent, because there must be taken into consideration the avoidance of contingent expense due to a larger percentage of change in teachers, as already pointed out. The final and permanent effect of such a schedule will be the securing of a body of teachers thoroughly prepared for their work because of the definite requirements of the schedule and the

added inducement offered for further preparation. In this necessarily short discussion of so important a topic, I have avoided quoting figures or statistics of any kind, but reference is here made to a printed copy of our salary schedule which follows. We have sought to establish a reasonable minimum wage, a moderate yearly increase, and a maximum, that, while offering inducement for continued association, will not be so high as to unduly burden the taxpayers who must settle the bill.

There are several other and perhaps minor ways in which teachers may be induced to stay in a school system while they render the kind of service we all want and expect to receive. There must be the most friendly and hearty cooperation between the teachers and the superintendent and of course this feeling can only exist by mutual respect and tolerance for each other's ideas and convictions.

Another influence we have found very helpful is a woman's advisory board. This is a committee or board of representative women who have an advising position as related to the school board and who can come much closer to the teacher and her problems than can the men of the board. By this means the teachers feel they have a body to which they can go with suggestions or complaints and which will present their case impersonally to the attention of the board. Our woman's board is also exceedingly helpful to the teachers in securing suitable and comfortable boarding and rooming places and in showing them some social attentions that promote their acquaintance with the people of the community, all this making for more friendly and home-like relations. The woman's advisory board is also extremely helpful in furthering the relation between teachers and parents, encouraging parent-teacher organizations, and also in suggesting possible improvements and changes for the convenience and comfort and health of both teachers and pupils.

It would be unwise to close even such a brief and informal paper as this without some expression of our appreciation as school board members of the high character, untiring zeal and faithful ministry of our public school teachers. No body of people in our land, unless possibly the mothers, is exerting such a wide and wise influence on the lives of our young people. If we have come to the time in our lives where our thoughts are becoming more and more retrospective, with the memories of our childhood's home, comes too, the many thoughts of old school days and the grateful recognition of what at least some of our teachers did for us in the way of inspiration, encouragement, and ambition.

So to us as school board members, through our superintendents, is given the grave responsibility of wisely selecting, cordially assisting, and permanently retaining an earnest, efficient and consecrated company of teachers.

SALARY SCHEDULE, MITCHELL, SOUTH DAKOTA

Minimum Requirements
Preparation (not retroactive)
GRADES—One to Six: Advanced Normal or equivalent, representing two years work above a four-year high school course.

JUNIOR HIGH SCHOOL: At least one-third of teachers with A. B. degree and fifteen semester hours of education. Remainder, same as for first six grades.

SENIOR HIGH SCHOOL: College graduate with A. B. or equivalent degree, including fifteen semester hours of education.

Experience

Throughout the system teachers are required to have had two years actual teaching experience in standard schools. Practice teaching in training school is not considered as fulfilling this requirement. Rural experience may count one-half that of standard schools. Experience in standard schools, other than local, to count one-half in salary schedule.

Salaries

CLASS I—Teachers with advanced normal training or equivalent and two years experience: Minimum salary, \$1,100; maximum salary, \$1,500; yearly increase, \$50.

CLASS II—Teachers with three years normal or college training beyond a four-year high school course, and two years experience: Minimum salary, \$1,200; maximum salary, \$1,600; yearly increase, \$50.

CLASS III—College graduates with A. B. or equivalent degree and two years of experience: Minimum salary, \$1,400; maximum salary, \$1,900; yearly increase, \$50.

(Concluded on Page 152)

The Beginning Superintendent and His Board of Education

H. H. Kirk, Superintendent of Schools, Faribault, Minn.

In this article the writer hopes to present some points that will benefit that large group of principals of consolidated schools and superintendents in systems employing less than a dozen teachers, most of whom are relatively new in administrative work. While periodical literature deals very bountifully with the problems of the moderate sized system, nevertheless, it is very deficient in dealing with the beginner and his problems. It is the aim of the writer to discuss, in the light of his own experience, several vital points of contact between board and superintendent, and to point out methods which he has found effective in establishing a basis of confidence and sincere cooperation.

At the outset it should be stated as a positive principle that the beginner should in the earliest possible space of time establish himself as the actual head of the school system. At least by the close of his first year he should feel that he is actually the executive of the board of education and the one responsible head for the school system, responsible directly to the board of education, and its agent in all matters. There is only one reason why this should be the case, and that is the fact that he is the only person qualified by training to view school matters in their true perspective.

The beginner is often told that it is his prerogative to be the executive of the school board and that all matters of school conduct should pass through his hands. This line of argument should be forgotten as quickly as possible. In the eyes of the law the superintendent of schools has no prerogatives. The law does not confer any. It is the board of education that employs teachers, enters into contracts, authorizes capital outlays, repairs, and payment of bills. The law says little or nothing whatsoever about the superintendent or principal doing these things. Any prerogatives that the superintendent has are those that the board of education sees fit to turn over to him as a result of the confidence that they have in his ability to manage things. The beginning superintendent should not worry about his rights, for he hasn't any. On the other hand if he has not merited the confidence of his board of education by the close of his first year, to the point where they have turned over to him many of these duties for which they themselves are responsible, either he has a very unusual board or he has wasted many golden opportunities to establish himself.

As stated above, the reason which stands out most clearly for a superintendent or principal establishing himself as the executive of the board is simply this, that all details in the running of a school system, no matter how large or how small, ought to be considered and worked out in terms of boys and girls, in terms of interaction of mind between pupil and teacher. There is only one reason that schools are organized and that is to provide the opportunity for mental interaction between teacher and pupil. This is as true in the large school system as in the small. In the one-room rural school the problem is rather simple. In such a school the teacher is everything to the pupil. However, as soon as there is more than one teacher under the same roof, complexity of organization begins. When two teachers work under the same roof, one of them must bear the title of principal because there must be some one whose responsibility it is to deal with matters affecting the school as a whole. The complexity increases with the size of the school system, until by the time we reach a system the size of St. Paul or

Minneapolis, we find a vast army of engineers, janitors, architects, supervisors, assistant superintendents, clerks, stenographers, store-room employees, and truck drivers. The complexity of such a vast system is somewhat baffling and sometimes appears to the observer as just so much needless "red tape". However, all this vast organization is designed for one purpose only and that is to enable minds of pupils and teachers to interact and to enable "ideas to shoot" as the result of such contact. Hence when one sees a truck passing through the streets with the words "City School Department" painted on it, he may realize that the only reason for that truck being upon the streets at all is that the school system is so large that it requires such devices and such employees to make it possible for the pupils and the teachers to have the materials that they need for this mental interaction.

School Board Members Busy

Now to get back to the small school system again. As a general proposition there is only one person who is in a position to have the proper perspective and to view everything in terms of this mental interaction. Frequently there is a board member who has as broad a grasp of the problems as the beginning principal, but he is usually a man who is so busy with his own personal affairs that he cannot, even if he desires, neglect his vocation in order to give much time to the schools. Board members are invariably very busy men. In the average community one may find on the school board perhaps a busy furniture man, a much overworked doctor, an attorney, or a lumber man. These men are absorbed in the process of earning their living and should not be expected to be familiar with all the ins and outs of a school system. Although board members as a class are anxious and willing to view all school matters in the proper perspective, it is the responsibility of the principal or superintendent to act as an interpreter and keep the board informed as to the feasibility of one policy and of the serious consequences of another.

It often requires patience to persuade a board member as to the wisdom of a certain course of action. It has been the writer's experience in several school situations of finding it necessary to educate individual members of a board of education on the point that coaching athletic teams is only about one-fourth of a physical director's job, that a physical director owes his time to the undeveloped boys as well. On one or two occasions it has been difficult to get a board member to disregard the ties of friendship and relationship in matters of pupil discipline. Usually, however, a board member is very quick to realize that the presence of an incorrigible pupil in the schools is a menace to the welfare of those who are normal in their behavior. It sometimes requires much patience to show a board member why an incompetent teacher

should be released from the system in spite of the fact that she is well advanced in years, in poor health, or perhaps in need. In spite of all these examples, however, the board member is rare who will not prove his devotion to the cause of education and to the welfare of the boys and girls in the community, by standing on the right side of a question of the preceding type when the facts have been logically and fearlessly presented to him.

To restate the principle which was stated at the beginning, there is only one person who should be expected to analyze these school situations and see them in the proper light. It is that person's duty to analyze and interpret to the board just what policies are the advisable ones to follow. That person is the principal or the superintendent.

The Janitor Problem

Let us now consider four matters which the principal may logically handle for the board of education and which he should handle if the best welfare of the boys and girls is to be considered. The first of these is the matter of handling the janitors. This is very frequently a disagreeable problem, but not necessarily so. It has always been a perplexity to many that the handling of the janitors should be considered as outside of the principal's duties. There are many examples of school systems where the principal is in charge of practically every detail except the janitor service. The janitor service in such cases is usually left to the clerk of the school board or some board member. It is absurd that any board member should consent to have his time taken up by supervision of janitor work when such a duty belongs to the principal employed by the board. Let us consider for a moment that there is a possibility of better ventilation, or that the janitor's methods of cleaning are out of date, or that by certain matters of neglect about the building moral risks are involved. What remedy can the beginning principal employ to get control? If he happens to find himself in a school situation where the janitor is responsible to a board member and where the janitor sees fit to disregard or ignore the principal's authority, the principal has recourse to one method only and that is the method of educating his board. They must see such matters as the physical, mental and moral development of the children in the schools, that ventilation and cleaning are matters that affect directly the health of the children and their potentialities as citizens in the future as well as the kind of work that they are able to do in school. In fact, practically every feature of the janitor's work affects in some way the welfare of the children. If he permits filthy language and pictures to remain on walls in parts of the building, he is permitting a moral risk to be incurred. If the building is allowed to have a slovenly appearance, the ideals of the children are depressed, and to that extent they will be poorer citizens in the future. The average board member is not always thinking in such terms but is quick to see them when they are pointed out to him. The writer has used several methods in order to get this attitude of mind before his board members. He has always had recourse to conversations with them but has quite frequently taken pains to supplement these conversations with articles from such sources as the "School Board Journal", which have to do with janitor work. In addition to these there are several good dissertations on janitor service which may be had from various sources, chief among which is the Bureau of



Publications of Teachers College, New York City.

A board member reacts in two ways to such an approach. In the first place he is as a rule complimented by the fact that the principal sees fit to make the effort to bring matters to his attention. In the second place, it increases the board member's admiration for the principal and he realizes perhaps with surprise that the work of the school principal is not merely that of a "professor", but in addition that he is a business man and manager. A diplomatic approach in the manner suggested is productive in just this way, that the board member comes to the realization that the principal knows what should be done and he is very quick to turn over to him many of these duties which he feels that the principal can do much better than he himself.

Care of the School Plant

The principal should take the initiative in a second phase of the work and that is the suggestion of repairs and alterations which are necessary from time to time. Such matters as repairs are always able to be translated in educational terms. For example, it may be advisable to install a better type of blackboard. Upon superficial examination this may seem to be a business matter and not one that should concern the principal; but from the standpoint of care of the eyes and of freedom from dust in the lungs, the matter of a better blackboard is truly one which is educational in all its bearings. Perhaps certain rooms are poorly lighted. This is just as truly an educational matter because the principal should see the effect upon future citizens who are at the present time compelled to sit in rooms where there is constant eye strain. It may be that a certain amount of painting is advisable. This is also much more than a matter of care of the property. It is an educational matter in this way, that the standard of living is elevated if the surroundings are made more attractive. Perhaps it is the case that the seating arrangement is wrong in a room which would be otherwise very satisfactory. Perhaps the light would come from the proper direction if the seats were merely turned ninety degrees.

The care of the physical plant is just as truly an educational matter as the teaching of a class in geography. Board members, however, cannot and should not be expected to analyze the situation to the point where they will be aware of this fact. There is only one person in the system who is expected to have a broad and comprehensive view of everything that affects the life of the boys and the girls and that one person is the principal. It may seem like a long or rugged road which the principal has to travel in order to bring the board of education to the point where they will realize the truth of this fact and yet the task is far from impossible. Once again the sagacious principal may employ to good effect all his conversational powers not only with the board of education in their regular meetings but as he meets them individually on the streets, at church, or in the lodge room. The literature upon the subject may be employed also. "The School Board Journal" is full of such matters as repairs and janitor service, and there are many good books which can be easily placed for a time in the hands of the board members. It has been the writer's experience in working with board members that they are ready to grasp the idea if it is presented to them logically, diplomatically and fearlessly. The reaction of the board member in this case is the same as was stated a few paragraphs back, namely, one of admiration and respect for the principal who has shown that he is not merely a master of "book learning", but also a master of his entire job.

In the field of school finance the principal has another great opportunity to be of genuine

service to the boys and girls whom he is educating, as well as to the boys and girls who will be in the schools twenty or thirty years from now. The real school executive will guard not only the present, but the future as well, by familiarizing himself as soon as possible with the debt situation of the school district and the method by which the debt is to be paid off. If the school district has obligated itself to pay off certain bonds by a certain specified time the wise school principal will know of this fact and will know of the best practices in the United States with reference to cancellation of school debts. If the debt is to be paid off by means of serial bonds or by a sinking fund the true school executive will stand guard like a faithful watch dog to see that no influences are brought to bear which would prolong the period of debt for the school district and thus impair the educational advantages of the children who attend school twenty years hence.

Finances and the Budget

The principal who wishes to gain the confidence of his board can find no better plan than that of familiarizing himself as rapidly as possible with every detail of the finances of the school district. He will know the various sources of school revenue; he will know the tax rate; the assessed valuation; the amount of outstanding debt; and every other particle of financial information which has the remotest bearing upon the schools. The principle here is the same as that stated before, namely, that before a system of schools can be administered, a financial program must be laid down. Money is necessary to make the wheels go round and the provision of money for school purposes is as truly an educational function as the selection of textbooks or the supervision of instruction.

The budget is a matter which could well occupy several hours in discussion. We can refer to it here only briefly. If the school principal finds that no budget has been formulated in the past and that the money for the running of the schools has been figured merely on the lump sum basis, he can take no better step than to analyze very carefully the cost for various items during the past four or five years and appear before his board from time to time, with tabulations which will reveal his grasp of the situation. If this is done shrewdly and considerately, the board of education, unless they are an unusual board, will welcome at the proper time a proposal from the principal as to a budget for the coming year. The lump sum shown should by all means be broken up. For a school district to levy a lump sum of \$30,000 without any analysis of this sum into the various items of expense, is a poor method of procedure. Thirty thousand dollars is a large sum of money and it looks large to the taxpayers. On the other hand, if this sum is broken up into small quantities, the reasonableness of the figures is not hard to see. For example, if \$300 of the amount is specified for the purchase of textbooks and other sums are specified in similar fashion, the fact is very plainly revealed to the public that the board of education in asking the taxpayers for \$30,000 knows just why it wants this sum of money. It may be necessary to break up the sums still further. There may be a question as to why \$300 should be spent on books. If this sum is divided by the number of pupils in attendance at the schools, it is readily shown that the sum of \$300 means perhaps only \$2 for every pupil in the schools.

The principal may at this point do well to forget such expressions as capital outlay, auxiliary agencies, general control, and fixed charges, and get down to such brass tacks as paper, chalk, coal, paint, paper, pencils, texts, and postage stamps. There is nothing very enlightening to the average board member in such generalities as maintenance. On the other hand, nails, lumber, water pipe, and paint, are

cold facts, the need for which does not require a course in problems of school administration.

All these matters can, and should be, analyzed by the principal and presented to the board of education. The board member has not time to do this and should not be expected to neglect his own business for the purpose. On the other hand, the school principal is charged with the responsibility of seeing the entire school situation, and it is not only his duty but it is his opportunity and privilege to acquaint the board members with every business detail concerned in the running of the schools.

The Selection of Teachers

There is one other point that might be mentioned in which the principal should take the lead. In an experience of fifteen years in school work, the writer has been superintendent in four school systems. In two of these systems the principle was already established that the board of education would accept the superintendent's recommendations and employ the teachers whom he nominated. In these two systems it was definitely established that the superintendent should be responsible for the selection of the teachers and as a result be responsible for the kind of work done by those teachers. It was further a matter of agreement between the board and the superintendent that the board would never interfere with this process except that they would dispense with the services of the superintendent if he plainly revealed the fact that he did not know how to select good teachers. In the other two systems it was necessary to proceed quietly in a campaign of educating the board to the fact that the superintendent probably had more time to investigate the qualifications of applicants for teaching positions and possibly also a greater technical knowledge of what a teacher should be able to teach. These two situations will be briefly described.

The first situation was in a small city in North Dakota in a system employing twelve teachers. It had been the custom for a number of years of setting a definite date for the employing of teachers by the board. When the day arrived the clerk of the board appeared on the scene with a stack of applications possibly ten inches thick. These applications had photographs attached but no investigation had been made in any case. The board started in to elect teachers and the process in each case was something like this: The clerk read the applications to the entire board. When he came to an application that appealed to any members of the board, it was passed around so that each person could get a look at the photograph and get first hand information regarding a few matters such as the applicant's weight, her height, and her church membership. The writer was new in the business and is frank to say that the process not only amazed but amused him. After a time, however, when they had had the opportunity for the better part of an hour of examining very carefully the photographs and the age, height, and weight data, they were ready to narrow their selection down to the most likely candidates. At that time the superintendent asked a few questions such as the following: "What do you know about the candidate's record in her last school? Is she familiar with the latest methods in teaching reading or arithmetic? Does she know anything about supervised study? Can she conduct a socialized recitation?" Of course these questions produced rather vacant expressions on the faces of the board members. Then a few illustrations followed. It was suggested that it was very unlikely that any one of them would buy a binder, or a mowing machine without inquiring very carefully as to the good points of such a machine from the neighbor who happened to own one of them. It was pointed out to my

millboard member that he would scarcely employ an engineer for his mill without at least telephoning to the town where he had worked last to find out what kind of workman he had been. It required very little argument to convince the board in this particular case that it required more than a photograph and a few physical measurements to place good teachers over our boys and girls. As a result the board asked the superintendent to send out letters of inquiry regarding the various persons who had applied, and from that point and for the next three years, the board of education in every instance elected the teacher whom the superintendent nominated for the position.

Technical Process of Picking Teachers

The second situation was in a system that employed between forty and fifty teachers. In this particular system there was one man on the board of education who made it his special task to come to the office of the superintendent at least for half a day every week to read teachers' applications. At first it was not clear to the superintendent whether he was doing this because he was officious and anxious to assume authority or because he was very conscientious. The writer took the facts as they were, and worked hand in hand with this man for several weeks, making a systematic effort to point out valid reasons why this teacher rather than that teacher was a better prospect for the work. The idea gradually dawned upon this member that the work of selecting teachers was a very technical process and that teachers could not be selected merely on the strength of what they said about themselves in their written applications. He soon became aware, for example, that the primary teacher must be more than a person of good habits and good personality, that she must be a person who knew the last word in the various primary subjects and who could defend her methods of teaching in conversing about them. It soon dawned upon him that a successful high school teacher must be more than a person who had a few good testimonials from some other school, and that to be successful a great number of factors entered in, such as technical knowledge of the subject she was supposed to teach, the amount of work she had done in college, and the general philosophy which she followed in teaching her subjects. He quickly and of his own accord grasped the idea that ability to play the church organ, or make an agreeable week-end guest, did not necessarily spell equal ability in securing enthusiasm for the hard facts of geometry or ancient history.

Finally he took the step which was desired, namely, that he decided to place the matter in the hands of the superintendent. One day after having spent a considerable period of time in going over applications he admitted voluntarily that he felt that he knew very little about teachers and that he would like to be saved all the trouble and time required in going over applications. Immediately the writer made a proposal that he leave the work to the superintendent who would relieve him of all the burden except passing on the final application of the person whom he might select for the place. The suggestion was made that the superintendent would go through the applications and would, after making a decision, pass it on to him for his final approval. This method appealed to him very greatly and for the remainder of the time in which that city was the writer's home, the employment of teachers was carried on in that way. Toward the end of the second year this board member declared that he was very glad the arrangement had been instituted and also glad that the "buck" was not being passed to him in the matter of final decisions on the selection of the teaching force.

This matter of employment of teachers has been discussed at considerable length not be-

cause it is looked upon as a right or a prerogative of the school principal. As was stated in the beginning, the school principal has no prerogatives except such as the board sees fit to give him. The selection of teachers, however, is such a technical matter, that one requires a very broad knowledge of educational philosophy as well as a very technical grasp of the duties involved in each position, that the principal owes it to his community and to the boys and girls in the schools, to insure the selection of only the best obtainable teachers.

Legislation Not Needed

A great deal has been written lately about legislation that will define accurately the rights and prerogatives of the superintendent. The writer has no sympathy with such proposals. He would not care to work in a school situation where it was necessary to draw absolute lines or set up barriers for the protection of the superintendent. Rather than work for a school board who could not be educated to see the advisability of such proposals as he should make, he would certainly look as early as possible for a new situation. Life would be too short to waste large portions of it in standing with

one's back to the wall defiantly asserting his rights. On the other hand it can truthfully be said to the credit of practically every man of the twenty or more board members under whom the writer has worked, that as a class they are a group of earnest, sincere, honest and self-sacrificing men and women, anxious to serve their community and willing at all times to give of their time where the interests of the boys and girls demand attention. Almost invariably when a clash between personal preference and the welfare of the children has occurred, the children have won the day. As a final statement, let it be once more asserted that the school principal owes it to his community and to the boys and girls of the present as well as of the future, to be a real leader in the educational policies of that community. Unless the circumstances are very unusual indeed, it will be found that the field is ready and that the board and community are anxious for leadership and ready and willing to follow. In the final analysis, it is up to the principal himself whether he will be a true educational statesman, or merely a pedagogue of the Ichabod Crane variety.

Teaching Versus Testing

Garry Cleveland Myers, Ph.D., Cleveland School of Education

Of giving tests there is no end. The standard test is now a fad. Fine as has been the contribution of tests and measurements, the testing wave has carried with it a few ills.

Many are testing just for the luxury of giving tests. Some supervisors and administrators think they must be doing it just to be in style. A few of their teachers try also to keep up with the fashion.

The child is the sufferer. He very often is tested upon what he has not had an opportunity to learn. For New York children to be found lower or higher on a test than Chicago children may only mean that one city taught more of the things covered by the test than did the other city. Practically no comparison between the qualities of teaching is revealed. To a remarkable degree curricula have been modified in terms of scores on certain standard tests. Nevertheless most of these tests had been built upon materials more or less arbitrarily selected.

We are beginning to wake up. We are beginning to determine pretty carefully what shall be taught, then to administer a test to see how well that material has been learned.

The classroom teacher of the future more and more will define her specific objectives and then check upon the child solely in terms of these objectives. She will teach first and test afterwards and she will test only upon what has been taught.

The average classroom is still primarily a testing place. Most of the so-called recitation consists in giving the child oral or written examinations. So-called drills are practically all examinations upon what had been imperfectly learned or not learned at all. Even schoolroom games in the elementary grades are for the most part kinds of examinations.

The average child spends most of his time in school discovering mistakes, repeating them, and trying to correct them. The same teacher who may complain most about written examinations of her children may indulge very liberally in oral tests, spending most of her time quizzing her children. She may quiz, too, on much of what they have not yet learned.

Because the child must spend so much time correcting and repeating errors on fact materials he has little time at his disposal for using these facts in reasoning activities. One way to help the child master more quickly and accurately the few facts he is supposed to acquire is to put

more emphasis upon teaching and less on testing, more on learning and less on being quizzed.

In teaching facts as in arithmetic, spelling, and the basal facts in content subjects, we need to put more emphasis upon first correct impression and upon correct repetitions.

Accuracy first should be our slogan. Instead, the unwise use of standard tests has stimulated teachers almost everywhere toward an insane rate of speed. We are teaching our children to make mistakes in spelling, in arithmetic, and even in reading at a record breaking speed.

In the ordinary class procedure, say in teaching long division, the teacher presents one or two samples. Then she calls to the board a child to do another similar one. The chances are he makes several mistakes which become errors for most of the other children looking on. Another child is called to the board. He also makes errors but is corrected. After several children have demonstrated their efforts most of the children have observed almost as many wrong units of learning as right ones.

What actually happens in this instance, which is typical of so much classroom teaching, is that each child called upon is given an examination on what he has not learned. He and the rest of the class spend the next several years chiefly in being tested on long division.

What can be done about it? Instead of having the child work a problem in the usual fashion let him and all his classmates go over a number of samples done correctly covering the most elementary step. With this mastered all can work several problems covering that specific unit. Then the next definite step can be presented in models to be followed by motivated problems.

This kind of teaching before testing of self-teaching from samples, is well illustrated by the series of elementary arithmetic work books by Knight, Ruch and Studebaker. The writer also has developed numerous units of self-teaching exercises, such as reading and writing decimals, reading and writing numbers. Persing and Myers have demonstrated *self-teaching from samples* in their "Practice Exercises in Summarizing."

During the next several years we shall come to do more teaching and less testing. We shall learn to test only upon what has been taught. Consequently we shall develop simple units of

(Concluded on Page 187)

The Value of Carefully Defined Rules and Regulations Covering the Work of the School Board and the Superintendent¹

J. Cayce Morrison, Columbus, Ohio

In discussing in a former paper the legal relationships that should exist between the board and the superintendent we pointed out the part that special act legislation had played in developing and establishing fundamental principles of school administration. In this article, we wish to establish the thesis that through the making and revising and use of rules and regulations forward looking boards and superintendents are establishing new and improved procedures in administrative theory and practice and are demonstrating the worth of those procedures. However, before taking up the consideration of the broader aspects of the problem, it may be well to review the present status of rules and regulations now in operation in Illinois cities.

Early in September, an inquiry was addressed to all superintendents of Illinois cities above 2,500 population, requesting a copy of any printed, mimeographed, or typed rules and regulations then in force. Returns were received from 80 different cities;² 44 of these sent copies of rules and regulations now in force; five other superintendents stated that their rules were under revision; nine thought that they did not need rules and regulations; six reported that they did not have such rules but believed that they were useful and often needed; ten merely stated that they had no rules; and four described at some length oral understandings, between the superintendent and the board, that had not been reduced to writing.

Of the 44 sets of rules and regulations some were incomplete and others dealt only with fragments of the entire administrative organization. They bore dates of adoption ranging from 1897 to 1925. Since the period of economic stress following the war has caused a great deal of reconsideration of basic administrative principles, it has seemed advisable to me to analyze only those rules that have been adopted since 1918 or during the post war period. Further, all sets of rules that were not fairly complete were discarded. This left the rules and regulations of twenty cities to be studied.³ A brief analysis of essential features of these rules follows:

The number of standing committees ranges from three to twelve, with the median at six. The usual number of members on a committee is three, although five is not uncommon; and one board has eleven committees ranging in size from five to nine members, and a twelfth committee consisting of two members for each school. In reality this twelfth one is as many committees as there are school buildings or units in the city.

The standing committees of the twenty cities are listed under fifty different titles. Those mentioned more than twice are given below:

Buildings and grounds.....	17
Finance	15
Rules and regulations.....	9
Supplies	8
Auditing	7
Teachers	6
Textbooks and courses of study.....	5

Committees mentioned twice only were: finance and claims, health and sanitation, health, janitors and supplies, printing, school management, visiting, teachers and salaries. In

addition, all of the foregoing were found in various combinations. Those that appeared in combinations most frequently were: teachers, health, textbooks, and buildings.

An analysis of the topics treated in the rules and regulations of the twenty cities, shows the following major topics and the frequency of each:

Major item	Frequency
Organization of the board.....	20
Order of business.....	20
Powers and duties of committees.....	16
Powers and duties of officers of the board—	
President	16
Vice-president or president pro tem....	6
Secretary	14
Clerk	1
Treasurer	3
Attorney	3
Powers and duties of the executive officers of the schools—	
Superintendent	20
Secretary to the Superintendent.....	1
Assistant Superintendent	4
Business Manager	3
Auditor	1
Chief engineer or Supervisor of buildings and grounds.....	5
Principals	20
Powers and duties of supervisors, teachers, other employees, and pupils—	
General or grade supervisors.....	9
Special supervisors.....	16
Teachers	20
Pupils	18
Janitors or custodians.....	19
Attendance or truant officers.....	9
School nurses.....	4
Other health workers in school.....	4
School dentist.....	1
Enumerator	1

It was suggested to those superintendents who had no rules and regulations to submit, that it would be helpful to our discussion if they would indicate to us why their boards had not adopted such rules and regulations. Their replies open the whole question for discussion. One man wrote he was certain that carefully defined rules were valuable, but that he felt himself totally incompetent to formulate a satisfactory set. As I have measured my own shortcomings against this problem, I am wondering if he really did not speak for a great many school authorities. Other reasons given may be grouped under four general headings: (1) The present situation is satisfactory; rules are not needed; (2) rules are too inflexible, the superintendent has a freer hand without them; (3) if the board and the superintendent are not in harmony, better change superintendents; and (4) boards will delegate powers to the superintendent as rapidly as he is able to take care of them.

The first of the foregoing reasons probably describes quite accurately why many boards of education have not formulated, through their proper representative, any adequate statement of their administrative organization and procedure. The personal relations between the board and superintendent are satisfactory; in oral discussion from time to time they have agreed upon certain fundamental relationships; if something goes wrong, the superintendent slips out to a new job, and the oral quasi-understanding is renewed in some form with a new man. This objection to rules and regulations loses sight entirely of the fact that boards of education membership is changing annually, and that any oral understanding is all the more valuable when reduced to writing so that both parties have a record to protect themselves against lapse of memory or change of mind.

When one examines rules and regulations now in force one is not surprised that some superin-

tendents look upon them as being "too mechanical," "too inflexible," as a handicap to the administrative head of the school in developing a sound program. When they deal with petty detail rather than broad administrative principles, when they delegate the same function to the superintendent on one page and to a board committee or to a business manager on another page, when they have been made by the scissors and paste method rather than from a thorough knowledge of the service to be rendered—then, they are, without question, a thing to be avoided, yes, condemned. The gentlemen who are trying honestly to administer a school system under the provisions of a set of rules adopted in 1897 or even in 1910 feel, no doubt, that rules are a nuisance. The apparent sacredness of the printed page is the chief handicap here. The average board when it adopts a set of rules and regulations overlooks the fact that administrative procedure is a changing, growing thing, that what serves very well today may be out of date ten years, five years, or even a year hence. They overlook the fact that superintendents differ in their desire and capacity to assume responsibility; and that rules which may work exceedingly well with one superintendent should be revised in order that his successor may render his best service.

There are, at least, two procedures already in use to overcome this objection, of inflexibility, to rules and regulations. One is to print them in loose leaf form, so that whenever a change is made it will involve reprinting only the page or pages concerned. The other plan is to have each revised rule printed in such form that it can be inserted at the proper place in the original printed volume. Either procedure requires that official record be kept of all people connected with the school administration, who have copies of the rules, and that these authorized revisions be printed and sent with instructions for insertion in the original volumes immediately after the revision is adopted. When rules and regulations are drawn up on the sole basis of attempting to make it possible for each individual concerned to render his best service, and when proper provision is made for revising such rules as the occasion demands—then there is no danger that any superintendent will find himself handicapped so long as his goal is to serve the schools under his charge.

Our third objection, namely, that when the board and superintendent are out of harmony, it is best to change superintendents is a belated echo of the tragedy that has accompanied the development of school administration as a profession. It ignores entirely the need for and the possibility of preventing the development of the lack of harmony assumed. All of us would agree without argument that no set of rules and regulations, however carefully drawn, could, or should be allowed to keep on the job a superintendent who is a weakling or who has demonstrated his incapacity to deal with the situation at hand. On the other hand, we agree as readily that a good board and a progressive superintendent, through oral understanding or through the resolutions passed from time to time as a result of discussion in board meetings, can develop a high type of administrative procedure. That such is the case, is easily demonstrated by the records of a score of cities in this state. But this objection overlooks the facts that men usually think more clearly and deeply when they attempt to reduce their agreements to writing; that it is always easier to agree on fundamental

¹A second paper presented to the Joint Conference of the Illinois State School Board Association and City Superintendents' Association, Decatur, Illinois, October 29, 1925.

²After this paper was prepared replies were received from eleven other cities.

³The cities included are: Alton, Belleville, Bloomington, Canton, Chicago, Chicago Heights, East Moline, Evanston, No. 75, Galena, Galesburg, Glen Ellyn, Hinsdale, Lisle, Joliet, Kewanee, Moline, Peoria, Pontiac, Streator, Wood River.

principles when both parties are in perfectly good attitude, than it is after difficulties have arisen; and that through the drafting of a set of rules and the resultant discussion, the superintendent has the best possible opportunity of reaching a thorough understanding with his board as to the procedure that should be followed by all concerned with the administration of the schools. To follow any other course is like waiting until the horse is stolen, to lock the barn, or till the house takes fire before taking out a fire insurance policy. Men who complacently assume that the only way to cure lack of harmony is to change superintendents, shiftily dodge the issue that one of the chief responsibilities resting upon board members and superintendents is to promote harmony and good will, to contribute toward a continuity of policy and program in the administration of any school system.

The objection to rules, on the ground that, "boards will delegate powers to the superintendent as rapidly as he is able to assume them," is, at first sight, the most difficult objection to answer. It contains so much real truth that one is likely to overlook the fallacies lurking in its shadow. It assumes an all-wise board of education with a paternal attitude toward the promising young superintendent they have in their wisdom selected. It assumes that all boards operate solely on a basis of good will and with an absolutely unselfish regard for the schools' welfare. It implies, that it is the rule for superintendents to assume jobs they are not yet capable of filling and that they need time to grow into them. It ignores the fact that school administration has already become a profession and that it is possible for boards to find superintendents big and strong enough to take the helm the very day they go on the pay roll. It accepts in principle the idea that administering a school system is a task that can be performed quite as well by laymen as by men professionally trained through long years of study and experience.

I venture the assertion that board members will be the first to agree with me as to the danger of the fallacies stated. The average board member is looking for professional guidance, he wants a superintendent to whom he can delegate responsibility from the first day. Fortunately indeed is the city whose board members with a record of twenty or more years of service have not seen selfish or narrow interests attempt to undermine all the good that had been attained over a long period of years: the history of school administration during the past ten years is replete with experiences where good will did not prevail. There was a time in the pioneer stages of our development when boards were obliged to employ laymen or untrained individuals, who could learn the job only through experience and who needed time to demonstrate their fitness to assume responsibility. City school administration as a practice is nearly a hundred years old, as a profession or a scientific study it is scarcely two decades old, it is hardly come of age; yet the time is already at hand when it will be quite as impossible for an untrained man to go to the top in any phase of school administration as it is in medicine or the law. Our public has a right to expect boards to select administrative officers who by their training and experience have demonstrated their capacity to assume full executive responsibility from the beginning. To accept less is to court disaster.

The foregoing leads naturally to a consideration of the principles that should guide in the preparation of rules and regulations; for a consideration of the underlying principles throws light on the need for such rules.

1. *Rules and regulations should be formu-*

lated from an analysis of the service to be rendered. This involves full consideration of the several types of duties that are to be performed, e. g., purchase of grounds; construction, equipment and repair of buildings; employment and supervision of teachers and other employees; making the school of service to the adult community, and so on. It involves not only a careful consideration of the educational program to be offered; but of the business procedure to be utilized in developing the program; and a knowledge of the fundamental principles controlling the best practice in city school administration.

2. *Rules and regulations should definitely fix responsibility.* No matter how large an organization becomes, the service is actually rendered by individuals to individuals. One of the evils of our later developments in school administration has been the tendency to lose sight of the individual's responsibility.



3. *Rules and regulations should eliminate the overlapping of authority.* One of the chief causes of friction and misunderstanding in school administration is the feeling of two or more individuals that they are responsible for the exercising of the same function. The fault is so prevalent that it is quite common to many of the more recently published rules and regulations. A typical example is given in the following quotations from the same page of a certain manual of rules.

"The superintendent shall * * * with the approval of the president of the board, employ substitutes in case of sick or absent teachers."

"He," (the superintendent) "shall have power to fill all vacancies in case of temporary absence of teachers."

In case the superintendent were confronted with an absence which of the foregoing rules should he follow?

4. *The rules and regulations should grow out of the experience of the men and women performing the service, subject to the approval of the representatives of the people who are to be served.* I once served as teacher in a large city high school. On the first day I was handed a manual that defined the duties, the rights and privileges of the pupils, teachers, and others who worked in that school. The rules and regulations governing the work I was to do had been formulated by committees of teachers of that school and approved by those responsible for its administration.

In an hour of reading I had gained more understanding of the spirit of that school, of how I might best serve the pupils in it than I would have gained in weeks had that manual not been available. It was a good manual because it was the result of years of experience of teachers who had helped make that school. It was good, too, because those teachers had had a leader who realized that the best rules are not

handed down from above: today that leader is superintendent of America's second city. Why not ask the superintendent to draft a statement of the rules under which he would like to work, why not through him request each group of workers—principals, supervisors, teachers—to do the same? Why not rule out the conflicts through conference? Such conferences, if entered in a spirit of good will, will eliminate many a misunderstanding and increase the mutual respect of all who are interested in serving the welfare of childhood and youth. It is, of course, understood in proposing such a procedure that the final power of decision rests with the board of education. On the other hand that board serves best which uses its power only as a last resort.

5. *Rules and regulations should be constantly subject to revision under such conditions as would insure due consideration for the public good.* Whenever a rule proves ineffectual or a hindrance to the service being rendered, there should be proper channels whereby the shortcoming could be reported to the board. The best procedure would involve reporting the weakness with a recommendation for improvement through the superintendent to the board. If the superintendent recommended the change, a majority vote of the board should be sufficient to authorize the revision. If the superintendent did not definitely recommend the change then it should lie on the table until the next regular meeting, when after due consideration the change might be made by a two-thirds vote of the board. Such a check as is contained in the foregoing, insures due deliberation which is essential to a sound administrative policy, and yet allows opportunity for deliberate change essential to administrative progress.

In the light of the foregoing principles, I wish to discuss certain problems, suggested by superintendents during the course of our correspondence, because they are typical of an infinite number of problems, any one of which may wreck an administration at any time.

To what extent may the board of education formulate rules governing teachers' out-of-school activities? We have passed the day when school officials can afford to make fools of themselves on this question. Four years ago, a certain board of education refused to re-employ any teacher with bobbed hair. There are still communities where a teacher is likely to lose her position if she goes to dances; and there are other communities where her chances are equally slim if she is unable to chaperone dances. The courts of New Jersey have ruled that no board or superintendent has any legal right to ask concerning a prospective teacher's religious faith or affiliations.⁴ It may be assumed that the board's interest in teachers' out-of-school activities grows out of one or the other of two causes. First, its effect on her work in the school the next day. Second, its effect upon the moral outlook of the young people of the school and the community. The first of these causes is of no consequence so long as the teacher's daily work is all right; her supervisors are the sole judges of that issue. The second factor is less tangible; but it is better to have one general rule stating the fundamental principle that teachers' conduct should properly influence pupils, than to specify an infinite number of "shalls" and "shall nots." Teachers will universally resent the latter; while they will in the great majority of cases respect the former. The few cases who do slip occasionally from the standards accepted by the community can best be brought to time by a superintendent and principals who understand teachers and the standards acceptable to the community.

⁴New Jersey School Laws, 1921, Sec. 598-600, pp. 303-304.

What are the teachers' rights in assigning lessons, hearing recitations, grading papers, and controlling pupils? The whole problem of supervision is involved. The wise superintendent will allow a large opportunity for originality, for initiative; yet the teacher should know that her procedure, in the last analysis, must have his approval. On no other principle can a great system operate. These are not questions for the board to consider except as the superintendent may request or recommend such consideration.

Does the board of education have a right to set aside any examination grade or to change the minimum passing grade in order to accommodate any individual? Legally, yes; morally, no. It may be assumed that such an incident as is implied in the foregoing rarely happens in this day. The question involves the entire problem of the board's right to interfere with the internal administration of the school's instructional program. Boards can do no better than to establish a definite rule that the superintendent is the final arbiter in all such questions.

What rules should govern the purchase of supplies? This question should be solved primarily in preparation of the budget. The rules of the board should require the superintendent or the business manager, under the direction and with the approval of the superintendent, to prepare a budget after consultation with principals, supervisors, teachers, and other employees responsible for expending the items approximated. This tentative budget should be submitted to the board for approval or revision. After the board has once adopted the budget, the superintendent in person or through his business manager should be privileged to purchase any item specified in the budget within certain limitations, usually placed at from \$50 to \$100. The rules should require proposed purchases above this amount to be submitted to the board for approval. Certain kinds of supplies such as fuel, paper, and janitors supplies, should be purchased only after bids made upon carefully drawn specifications have been considered. Beyond the minimum essentials just stated, the amount of responsibility delegated to the superintendent may well depend largely upon the desire and capacity of the superintendent to assume such responsibility.

What should be the superintendent's responsibility in the construction and the repair of buildings? It should be the duty of the superintendent to keep the board advised as to the need for repairs and for new construction. It is a part of the superintendent's business to be constantly gathering data that will enable him to visualize the material needs of the school ten, or twenty years ahead.

Repair bills should be provided for in the budget. In cities large enough to justify the employment of an experienced superintendent, the power to authorize minor repairs should be delegated to the superintendent or through him to the subordinate official in charge of buildings and grounds. Major repairs should be authorized only upon the written recommendation of the superintendent. When a regular architect is employed he should be subordinate to the superintendent. When, as is usually the case in smaller cities, an architect is employed only occasionally, his plans should be submitted to the superintendent for his written criticism, suggested revision, or approval of them as a guide to the board's consideration. The superintendent should be responsible for the preparation of data needed by the architect for formulating his plans, he should in person or through a delegated representative be responsible for supervising new construction.

What are the duties of the superintendent as to general supervision? As executive head of

the school system, the sole power of supervision should be delegated to the superintendent. There was a time, when the process of education was much simpler than it is now, and board members were legally responsible for visiting the schools at specified intervals for the purposes of actual supervision. It is generally conceded, today, that board members ought not to be required to give the time that is needed for supervision and that the task calls for a greater degree of specialized training than the average layman can be expected to reasonably acquire. Still another factor is involved—in many states, today, a board of education actually has authority only when in session. When not in session, its individual members have no more control over schools than has any other citizen. The value of general supervision lies in continuous activity; because he can give continuous attention, to the job, it is well for boards to delegate the power of general supervision entirely to the superintendent. With all due respect to the gentlemen who are performing those duties, the "visiting committee" for each school building or unit belongs to the decade following the civil war and not to the second quarter of the twentieth century.

What are the superintendent's duties in the selection of teachers? The best board of education I ever knew refused to consider any application unless it was presented to them by the superintendent with his recommendation. Board members can relieve themselves of a great deal of annoyance and local pressure, if they will definitely establish the rule that they will never consider any application unless the superintendent so recommends. Of course the board may not see fit to approve every nomination that the superintendent makes; but this failure to approve will merely force him to make new nominations. The superintendent's success depends upon his teachers' success. If he cannot be trusted to interview and recommend teachers, the board doesn't need him.

What is the place and value of the committee of the board? Study of the rules and regulations previously referred to, suggests four reasons for the existence of the standing committee:

- It is a survival of a day when all administrative and supervisory functions of the school were exercised by members of the board.
- It is a resultant of the development of large boards growing out of the ward system of representation.
- It is expected to perform certain executive and legislative functions.
- It serves as an advisory agency of the board or as a means whereby board members may divide the responsibility involved in acquainting themselves thoroughly with all phases of the schools' affairs.

As was pointed out in the previous paper, the trend is away from committee organization and toward action by the board sitting as a committee of the whole. The passing of the ward system and the tendency toward small boards of

five members has eliminated one of the chief reasons for the committee system. The increasing complexity of city school administration and the resulting necessity of delegating more and more functions to professionally trained workers, is rapidly removing the other chief excuse for standing committees. Obviously, the lingering tendency of boards to delegate certain executive functions to committees is destined to disappear as rapidly as professionally trained executives demonstrate that they can render the service more efficiently than it is being rendered by lay committees. There is a growing conviction that only legislative or approval phases of administrative functions should be performed by the board; and that it should have no right to delegate these phases to a minority part of its membership. There remains but one excuse for the existence of the committee system, namely, its advisory capacity. Personally, I think that this advisory function with boards not exceeding five members will gradually give way to a newer procedure that holds the superintendent responsible for keeping the board thoroughly informed as to the conditions, needs, and progress of the schools, for initiatory exercise of all administrative acts, and for execution of all policies adopted or agreed upon by the board.

What should be the superintendent's relation to the board's committees? Where the committee system is retained, the superintendent should be an *ex officio* member of all committees, with the right to attend all meetings, and the right to speak to all questions, but not the right to vote; furthermore, the committee should have power only to investigate, consider, and report back to the board. On all questions the superintendent's report should be addressed directly to the board and should not be forced to approach the board through the medium of a committee.

The questions just discussed are but illustrations of the problems which carefully defined rules and regulations should adjust. The discussion of the legal relationships⁵ that should exist between the superintendent and the board applies in even greater detail to the formulation of rules governing their work. Study of present rules and regulations discloses three trends that should be adopted in full force in the administration of all city school systems. (1) The superintendent should be vested with full advisory powers on all questions before the board except the question of his own tenure or salary. (2) The power to initiate action in certain fundamental functions such as the appointment of teachers should be vested solely in the superintendent. (3) Responsibility for the performance of all executive phases of administrative acts should be vested entirely in the superintendent or his subordinates subject to his approval. Such a realignment of responsibility gives board members more time for reflective study of the problems that come before them and in the end assures a better service to the community.

To recapitulate, rules and regulations should be looked upon as a statement of principles governing the service to be rendered. Their formulation should take into account the changing social condition, the gradual evolving of new, fundamental procedures in administration, the growth of the school organization, and the ever increasing educational service to the community. They should be a changing, growing thing keenly responsive to the experience of the individuals who are endeavoring to put them into practice. Their only test should be the service rendered by the school organization to the childhood and youth of the community.

⁵Same as "I" above. Also, see Morrison, "The Legal Status of the City School Superintendent" pp. 148-154.



School Building Maintenance

II. What Is to be Maintained?

H. E. Ramsay, Maintenance Engineer, Detroit, Mich.

To attempt to list all of the various items requiring maintenance in and around a school building would require a great deal of time and would not be as instructive as to mention the major items. Throughout the United States there are in use quite a good many different types of school buildings and equipment, so that I shall only try to mention those that are more or less common.

Curiously enough, it is surprising that many people are entirely ignorant of the possibilities of maintenance in certain items. For example, when I speak of the maintenance of a flagpole, the average individual thinks of repainting every once in a while and possibly the replacement of the rope. A steel pipe flagpole, however, represents a real hazard. The air on the inside of the pole contains more or less moisture and certain temperature conditions cause this moisture to be condensed. The condensate if not properly taken care of may collect at the bottom of the pole and freeze, causing the pole to split and fall. Only last year I had a case of this sort; the "weep hole" had become clogged with chewing gum. Fortunately, the inspection found it in time.

For the purpose of getting a better idea of what is to be taken care of, it has been my custom in this work to prepare what I call a "Maintenance Assembly Chart". This chart is simply a listing of the various groups of equipment, together with the main features of the buildings and playgrounds; a summary of physical quantities. The groups with their subdivisions are as follows:

1. Window shades
 - Number—or number of rollers
 - (Widths) Useful in determining
 - (Lengths) quantity of stock.
2. Desks and Seating Equipment
 - Old style, by sizes
 - New styles—tablet arm, pedestal, etc.
 - Teachers' Desks
 - Chairs and Stools of all kinds
3. Blackboard Space—Kinds and areas
4. Fire Escapes
5. Door Checks—Different makes
6. Locks—Cylinder, mortise, and cupboard
7. Plumbing:—
 - Drinking fountains—Indoor and outdoor
 - Toilet Stools—
 - Flush tank
 - Range type
 - Flush valve
 - Urinals—
 - Trough latrine
 - Flush valve
 - Sinks
 - Lavatory bowls
 - Gas outlets
8. Heating:—
 - Boilers—Tubes and grates
 - Furnaces—Linings and grates
 - Radiators
 - Return pumps—Steam and electric
 - Temperature regulation
 - Compressors
 - Thermostats
9. Ventilation
 - Fans—Supply
 - Exhaust
 - Control dampers
 - Stack heaters
10. Electrical
 - Lamps
 - Motors
 - Motor-generator sets for unit systems
 - Bells, gongs, and buzzers
 - Glue-pots, irons, M. T. saws
 - Fuses—Cartridge, plug and cap
11. Playground apparatus
 - Slippery slides
 - Giant strides
 - Teeter boards
 - Sand boxes
 - Horizontal ladders, etc.
12. Roofs—different kinds and areas
13. Miscellaneous
 - Sash cord and sash tape
 - Window glass

Sidewalks
Pianos
Sewing machines
Flagpoles
Fences
Fire extinguishers
Downspout and gutters
Belting
Key wind clocks

14. A summary of all valves
 - Air
 - Water
 - Gas
 - Steam
15. Floors—Wood, concrete, tile, terrazzo, flexible, linoleum, other.

There are also other items, such as the pointing up of masonry and the painting and cleaning of walls, which constitute a considerable portion of maintenance work. A maintenance chart, so prepared as to show the quantities of the above named items for each building and then the totals, is very useful for determining, in an approximate way, the size of a maintenance organization needed and just what kinds of material and how much to keep in stock. It may also serve as a great aid for evaluation purposes, for in most cases it would only be necessary to set a fair average price and allow for the per cent condition.

I shall now mention the "maintenance points" of the main items as listed, showing just what there is that goes wrong, and also comment on the advantages of standardization.

Window shades. The normal wear on a shade causes a weakening in the roller spring, the ravelling of the cord and eventually the tearing of the shade itself. For school purposes the shade should have an adjustable feature, i. e., the entire shade be capable of being moved up and down in the window frame. This affords more light for the classroom, for when the sun may be in such a position as to shine directly in the lower sash it would not be necessary with an adjustable shade to obscure also the upper sash. This adjustable feature should be operated on a track arrangement, so as to keep the roller level.

An adjustable shade reduces the maintenance cost in that it covers only the portion of the sash desired and thereby prevents that very damaging action of a shade flapping in and out when the upper sash is pulled down behind the shade. By standardizing upon a certain general type of cloth, color, and adjustment, a further saving may be effected in maintenance. I know of one school system where there are six different kinds of shade cloth and three different kinds of adjustment.

Of course, one difficulty with standardization in public work is the objection that it prevents competitive bidding. This may be overcome in a large degree if the specifications for the article to be standardized are made fairly broad enough and yet definite enough to obtain the desired result.

From the maintenance chart is obtainable the quantity of material. This together with the "maintenance factor" should enable the building man or purchasing agent to determine how much stock to carry, if the work is done by the school system. The "maintenance factor" means the yearly percentage of the total installation that needs replacement. If the school board records are in the right shape this should be easily ascertained. For example, if the maintenance chart shows that the schools contain 15,000 lineal feet of shade equally proportioned in widths of 3'-0" and 3'-6" and the maintenance factor for shades is twenty per cent, then all that is necessary to apply this twenty per cent to the 15,000 feet and you have 3,000 feet or 1,000 yards, equally divided between the two

widths. Of course this will not always work out in an ideal way, because there may be some unusual demand for an especially light year in that type of repair, but the principle involved is worth applying. A more extensive explanation of this principle will be explained under the head of purchasing.

Desks and Seating Equipment. A record of the number of desks actually in use gives a fairly good key to the percentage of absorption of the enrollment. That is to say, if the seating exceeds the enrollment by ten per cent, you may know that you are about due for some more building, provided all available space is now in use in the various buildings. Seat repairs consist chiefly of replacing broken castings and split wooden parts. The annual renovation of seating equipment is also a large item. Damp weather causes drawers in desks to stick and in time they come apart and need re-gluing.

Blackboards. The chief troubles arising from blackboards is the condition of the surface where a composition board or some non-homogenous type is used. There is some trouble because the joints do not remain in line; this is, however, a matter of correct installation. No allowance has been made for the inevitable expansion and contraction due to changing weather conditions.

Fire Escapes. One of the main causes of deterioration to look out for on fire escapes is the rapid action of rust. It is surprising to find how secretly and rapidly this takes place. In the painting of a fire escape, or for that matter any metal exposed to the weather, great care should be taken to cover every bit of the surface. A small hole, or a bare spot, permits the starting of this corrosive action, which will continue and spread under the protective paint coating. The first intimation of this comes when some time later a large section of the paint will suddenly spall off. Frequent inspection will detect this. This rusting action usually is the most severe at the bottom of the side stringers. In connection with the fire escapes, it is always well to know that the fire escape doors are in good working order and do not stick. In the winter time the fire escapes should be kept free from ice and snow. In this connection, the gutters may sometimes drip over on the fire escape and cause a collection of ice on the treads. If it is necessary to fasten the fire escape doors back during fire drills, care should be taken to install some type of fastener that will not catch the children's clothing.

Door Checks. The type of door check or closer, and the manner in which it is installed and adjusted, has a great deal to do with its maintenance. Here again a great saving may be accomplished by standardization. Standardization in this item serves to save not only in the repair parts carried, but in the time saved by having the maintenance men trained to the adjustment of one or at the most two types. Normally the calls on this type of work are so few that it is difficult to keep in mind the manner of adjustment for five or six different types.

Locks. Locks may be classified under three types, cylinder, mortise, and cupboard. The most work comes from the repair of the first two mentioned types. It is well to select a sturdy type of lock even if the first cost may be a little greater. Last year my attention was called to a considerable amount of lock trouble at a certain school. Upon investigation, however, it was found that the fault was not with the locks, but with the door frames. Present methods of construction employ hollow tile largely for interior partitions. Where the buck is fastened into these walls, most architects and contractors seem to think that a few wooden blocks set into the wall provide sufficient nailing space for the frame. This is not so. With the inevitable settlement of the building and

TOPEKA PUBLIC SCHOOLS		MAINTENANCE ASSEMBLY CHART	
Room No.	Room Name	Room No.	Room Name
1	1st St. Bldg.	101	10th St. Bldg.
2	2nd St. Bldg.	102	10th St. Bldg.
3	3rd St. Bldg.	103	10th St. Bldg.
4	4th St. Bldg.	104	10th St. Bldg.
5	5th St. Bldg.	105	10th St. Bldg.
6	6th St. Bldg.	106	10th St. Bldg.
7	7th St. Bldg.	107	10th St. Bldg.
8	8th St. Bldg.	108	10th St. Bldg.
9	9th St. Bldg.	109	10th St. Bldg.
10	10th St. Bldg.	110	10th St. Bldg.
11	11th St. Bldg.	111	10th St. Bldg.
12	12th St. Bldg.	112	10th St. Bldg.
13	13th St. Bldg.	113	10th St. Bldg.
14	14th St. Bldg.	114	10th St. Bldg.
15	15th St. Bldg.	115	10th St. Bldg.
16	16th St. Bldg.	116	10th St. Bldg.
17	17th St. Bldg.	117	10th St. Bldg.
18	18th St. Bldg.	118	10th St. Bldg.
19	19th St. Bldg.	119	10th St. Bldg.
20	20th St. Bldg.	120	10th St. Bldg.
21	21st St. Bldg.	121	10th St. Bldg.
22	22nd St. Bldg.	122	10th St. Bldg.
23	23rd St. Bldg.	123	10th St. Bldg.
24	24th St. Bldg.	124	10th St. Bldg.
25	25th St. Bldg.	125	10th St. Bldg.
26	26th St. Bldg.	126	10th St. Bldg.
27	27th St. Bldg.	127	10th St. Bldg.
28	28th St. Bldg.	128	10th St. Bldg.
29	29th St. Bldg.	129	10th St. Bldg.
30	30th St. Bldg.	130	10th St. Bldg.
31	31st St. Bldg.	131	10th St. Bldg.
32	32nd St. Bldg.	132	10th St. Bldg.
33	33rd St. Bldg.	133	10th St. Bldg.
34	34th St. Bldg.	134	10th St. Bldg.
35	35th St. Bldg.	135	10th St. Bldg.
36	36th St. Bldg.	136	10th St. Bldg.
37	37th St. Bldg.	137	10th St. Bldg.
38	38th St. Bldg.	138	10th St. Bldg.
39	39th St. Bldg.	139	10th St. Bldg.
40	40th St. Bldg.	140	10th St. Bldg.
41	41st St. Bldg.	141	10th St. Bldg.
42	42nd St. Bldg.	142	10th St. Bldg.
43	43rd St. Bldg.	143	10th St. Bldg.
44	44th St. Bldg.	144	10th St. Bldg.
45	45th St. Bldg.	145	10th St. Bldg.
46	46th St. Bldg.	146	10th St. Bldg.
47	47th St. Bldg.	147	10th St. Bldg.
48	48th St. Bldg.	148	10th St. Bldg.
49	49th St. Bldg.	149	10th St. Bldg.
50	50th St. Bldg.	150	10th St. Bldg.
51	51st St. Bldg.	151	10th St. Bldg.
52	52nd St. Bldg.	152	10th St. Bldg.
53	53rd St. Bldg.	153	10th St. Bldg.
54	54th St. Bldg.	154	10th St. Bldg.
55	55th St. Bldg.	155	10th St. Bldg.
56	56th St. Bldg.	156	10th St. Bldg.
57	57th St. Bldg.	157	10th St. Bldg.
58	58th St. Bldg.	158	10th St. Bldg.
59	59th St. Bldg.	159	10th St. Bldg.
60	60th St. Bldg.	160	10th St. Bldg.
61	61st St. Bldg.	161	10th St. Bldg.
62	62nd St. Bldg.	162	10th St. Bldg.
63	63rd St. Bldg.	163	10th St. Bldg.
64	64th St. Bldg.	164	10th St. Bldg.
65	65th St. Bldg.	165	10th St. Bldg.
66	66th St. Bldg.	166	10th St. Bldg.
67	67th St. Bldg.	167	10th St. Bldg.
68	68th St. Bldg.	168	10th St. Bldg.
69	69th St. Bldg.	169	10th St. Bldg.
70	70th St. Bldg.	170	10th St. Bldg.
71	71st St. Bldg.	171	10th St. Bldg.
72	72nd St. Bldg.	172	10th St. Bldg.
73	73rd St. Bldg.	173	10th St. Bldg.
74	74th St. Bldg.	174	10th St. Bldg.
75	75th St. Bldg.	175	10th St. Bldg.
76	76th St. Bldg.	176	10th St. Bldg.
77	77th St. Bldg.	177	10th St. Bldg.
78	78th St. Bldg.	178	10th St. Bldg.
79	79th St. Bldg.	179	10th St. Bldg.
80	80th St. Bldg.	180	10th St. Bldg.
81	81st St. Bldg.	181	10th St. Bldg.
82	82nd St. Bldg.	182	10th St. Bldg.
83	83rd St. Bldg.	183	10th St. Bldg.
84	84th St. Bldg.	184	10th St. Bldg.
85	85th St. Bldg.	185	10th St. Bldg.
86	86th St. Bldg.	186	10th St. Bldg.
87	87th St. Bldg.	187	10th St. Bldg.
88	88th St. Bldg.	188	10th St. Bldg.
89	89th St. Bldg.	189	10th St. Bldg.
90	90th St. Bldg.	190	10th St. Bldg.
91	91st St. Bldg.	191	10th St. Bldg.
92	92nd St. Bldg.	192	10th St. Bldg.
93	93rd St. Bldg.	193	10th St. Bldg.
94	94th St. Bldg.	194	10th St. Bldg.
95	95th St. Bldg.	195	10th St. Bldg.
96	96th St. Bldg.	196	10th St. Bldg.
97	97th St. Bldg.	197	10th St. Bldg.
98	98th St. Bldg.	198	10th St. Bldg.
99	99th St. Bldg.	199	10th St. Bldg.
100	100th St. Bldg.	200	10th St. Bldg.

TYPE OF MAINTENANCE CHART DEVELOPED BY THE AUTHOR FOR THE BOARD OF EDUCATION, TOPEKA, KANSAS. THE ORIGINAL MEASURES 43" x 17".

the drying out of kiln dried (?) lumber, there eventually appears a considerable drawing away of the door frame. This of course serves to throw the strike plate and the lock out of proper alignment and presents a problem that is very hard to remedy. It is worth while to take care of this point in new buildings.

Plumbing. It would be possible to write a whole book on the maintenance of plumbing equipment. I shall mention only the main items. With outdoor drinking fountains care should be taken to either install anti-freeze fountains or otherwise protect them from this danger. Inside fountains should be set with due regard to the height of the children using them. The maintenance is no greater and the saving of water is considerable if self-closing valves are used.

The latest development in toilet stools is the flush valve. Instead of having a tank, as in the case of the flush tank type, where a sufficient amount of water is stored to flush the bowl, the flush valve operates on the principle of providing this quantity of water by connecting the bowl directly with the service line for a few seconds. This is done by suddenly releasing the seating of a diaphragm which returns to its seat by a gradual building up of the pressure back of it from water flowing through a by-pass to a chamber over it. The size of the opening in this by-pass is adjustable, thereby permitting a varying amount of time for this reseating to take place and consequently a varying amount of water to flow. Maintenance consists of removing small grains of sand or other obstruction from the by-pass and the replacement of the diaphragm.

For school use the range type of toilet is very satisfactory, in my estimation. It is, of course, claimed to be insanitary by the organized plumbers, but if the vent pipes are properly installed and they are kept as clean as any other toilet, they are just as sanitary. Maintenance is practically nil, the only wearing parts being the bearings on the dump tank and the seats.

With urinals, however, the trough latrine type is insanitary because of the fact that they have glass sides and backs which may become cracked and the control of the water supply is largely a matter of careful adjustment which many janitors do not understand.

The maintenance of sinks and lavatory bowls consists chiefly in keeping the waste line free and includes the replacement of gaskets in whatever may be present in the way of faucets.

The adjustment of the mixing valves for the various types of gas outlets is of much impor-

tance from the health standpoint as well as economy.

Heating. Here again a book could be written about the keeping up of the various parts of a heating plant. With the steam plants we may start with the boilers. The corrosion and pitting of tubes and the burning out of grates constitutes the main items of maintenance. The replacement of gaskets around main heads and the rebuilding of the arches are very important but not of frequent occurrence ordinarily. The auxiliary parts of a steam plant such as return pumps, stokers, etc., come in for their share of attention and may at times prove very serious obstacles to smooth operation.

With the furnace type of heating, there are the grates and lining castings. The maintenance of these parts depends a great deal on care in firing and the kind of coal, but in my experience these have never proved as annoying as the repairs to steam plants. I have never had a shut-down with a furnace job.

If temperature regulation is present, there are the air compressor for the operation of the thermostats and air motors on the dampers. The cylinders of the compressors should be kept smooth and the piston should be kept in conformity so as to keep the compression of the pump up to par. The repairs to thermostats and air motors depend of course upon the type of system used, but in general consist of the replacements of the rubber wafers and diaphragms and chiefly the adjustment. A great deal of economy in fuel consumption as well as proper heating conditions in classrooms will result from keeping the system in proper "tune".

Ventilation. Whatever the type of system used, there are the bearings of the fan shafts with the attendant troubles of motors. With the unit system as opposed to the central blast, you have many more bearings and brushes to keep up, which I believe in years to come will prove very costly.

It would, of course, be indiscreet to recommend any one particular type of ventilation as against another, but it is well to consider these things from the maintenance viewpoint. Following the general principle that a system composed of a few working parts is better than a system composed of a large number, one can readily see the possibilities for the maintenance man with some systems. Each additional unit added to a system means one more chance for a breakdown. Stack heaters are nearly obsolete features of ventilation systems, but their maintenance, where you have them in the older buildings, is not negligible and consists chiefly of the replacement of grates.

Electrical Equipment. The replacement of lamps should be systemized. The reason for this is that, if the janitor is allowed to replace burnt out lamps according to his own desires, there is likely to occur an overloading of the electrical circuits. The maintenance man should know just what each circuit is carrying and what its ultimate safe load according to code may be. Each room and corridor should be listed, designating the exact wattage for each lamp. When a lamp is replaced, another lamp of the same wattage should be put in. If more light is needed, the building superintendent should be consulted. Overloading of lighting circuits causes the greatest percentage of electrically started fires. Occasionally electrical toasters, irons, etc., are connected to lighting circuits already loaded to their capacity. This should not be permitted.

The average motor maintenance consists of the adjustment of brushes and bearings. Armature trouble is also to be expected with old motors or motors constantly overloaded.

The motor generator sets, required with the unit systems of ventilation to change alternating current into direct for quiet running of motors, have in addition to usual motor and dynamo troubles the upkeep of a coupling between the motor and generator.

Bells, gongs, and buzzers have the minor repairs, as loose connections, weak electromagnets, etc. It is best, if possible, to provide bell transformers for the operation of these units, as this eliminates the replacement of worn out batteries.

The connections to glue pots, irons, etc., become worn; the heating elements become eventually burned out. The installation of a ruby light indicator switch is a very good safety device to prevent the leaving of an iron or glue pot turned on.

Fuses represent a constant source of maintenance, and it is very essential that janitors be instructed to replace fuses only with fuses and not attempt to use pennies, nails, or bits of wire. An extra supply of fuses should always be available to janitors. The fuses protecting return pump motors and other auxiliaries of heating plants should be especially looked after.

Playground Apparatus. As mentioned in the introductory article, the upkeep of playground apparatus is very important from the safety viewpoint. Giant stride, chain links, and swing chain links and frames, as well as the wearing parts of many other pieces should be constantly looked after. Splinters on teeter boards may cause serious injury to some child. The curb-

(Continued on Page 137)

Substitute Pay in the Public Schools in the District of Columbia

The question before the board of education is, How much shall be paid substitutes who teach the classes of teachers who are absent? Stated in another way, How much money is necessary to pay to secure a competent person to take the class of an absent teacher? Or again, how much should be deducted from a teacher's salary to pay a substitute when she is absent?

In the District of Columbia, as in many cities, substitutes must be paid directly or indirectly from the absent teacher's salary. The board of education and the superintendent's office are not interested in the amount of substitute pay as such. They are, however, vitally concerned with the instruction which the children receive in the classes of absent teachers. They are responsible for providing adequate teaching service, whether through regular or substitute teachers. Their interest in substitute pay is *secondary and subordinate to the teaching service which the pay provides*. The amount or scale of substitute pay must be sufficient to procure substitutes who are qualified to teach the children over whom they are placed.

Substitute Service Long a Problem

The matter of substitute pay and substitute service has long presented a problem in the administration of the schools of Washington. In his report of 1915-16, former Superintendent Thurston discussed the problem of substitute teaching service, and stated that low pay is a factor in preventing the securing of a strong force of substitutes. In his report for 1917-18, the superintendent made an extended analysis of the situation, reporting on an investigation into the practice in thirty other cities.

The substitute pay in effect at that time was \$2.40 per day for substitute teachers in elementary schools for the first thirty days of teaching, and \$4 per day thereafter. High school teachers received a higher rate, \$2.88 and \$4.44 for Class A and Class B teachers, respectively, for the first thirty days, and \$4.80 and \$7.33 thereafter.

In accordance with the policy of the school administration department to consult with the teachers through their elected representatives on matters directly affecting them, the superintendent of schools addressed a communication to the teachers' council, under date of January 10, 1922, asking the council to consider and take action on the matter of substitute pay. The teachers' council appointed a committee to study and report on the subject. This committee's report to the teachers' council was as follows:

1. That a teacher be allowed an absence of ten days in the year on account of personal illness without loss of pay.
2. That additional absence on account of personal illness for a period not exceeding twenty days may be granted by the Superintendent.
3. For such additional absence 75 per cent of the teacher's daily pay shall be deducted and revert to the Treasury.
4. In case of further absence, the teacher shall forfeit full pay and a temporary teacher shall be appointed whose services shall terminate on the return of the regular teacher.
5. Until regular substitute teachers are provided for, it is recommended that the pay of substitutes be 75 per cent of the basic salary, as follows:
Class 1 to 5, \$3.00; Class 6A, \$3.60; Class 6B, \$5.50.

It is significant in the report that the superintendent had consulted with the teachers' council on the matter of substitute pay since in asking for a reconsideration of the rates of pay

established on February 4, 1924, a statement had been made to the contrary.

It is also significant that the committee of the teachers' council should have concluded that a raise in substitute pay was necessary before the teachers' salaries were raised; that the committee recommended as much as 75 per cent of the teacher's basic pay should be deducted for the substitute, and finally, that the committee should recommend the total salary should be taken from the teacher after a period of thirty days' absence.

The general significance of the recommendations was that in general they were less favorable to the teacher than those later made by persons responsible for the employment of substitutes.

Superintendent Awaited Passage of Salary Bill

Conditions at the time the report was presented to the teachers' council did not seem to justify the adoption of the rates of substitute pay proposed therein. The salary bill had not passed, and teachers' salaries had not been increased. The necessity for a higher rate of substitute pay in order to secure adequate service was not as apparent at that time as it became later. In view of the conditions, the superintendent took no steps then, looking toward increasing the pay of substitutes.

However, the question of higher substitute pay became urgent as time passed, particularly after the "increased salary bill" had been acted upon by Congress in 1924. In January, 1925, the board of supervising principals of the nine divisions of the Washington school system requested early action. The result was a meeting held by the superintendent with the supervising principals, to which were invited also the directors of special studies and the assistant superintendents. The result of the meeting was a recommendation that \$4 per day be paid elementary school substitutes, and that the administration offices of the school department should formulate a recommendation to the school board including this provision.

A few days later, the superintendent held a meeting with the senior high school principals, and later, another meeting with the junior high school principals. As a result of the conferences, a report with recommendations was presented on February 4, 1925, and unanimously approved. It is as follows:

Salary Class	Position	First Thirty Days	Second Thirty Days
Class 1.....	Kindergartens and elementary school teachers.....	\$4.00	\$ 7.00
Class 2A.....	Junior High School teachers with lower eligibility qualifications.....	5.00	8.00
Class 2C.....	Junior High School teachers with High School eligibility requirements.....	6.00	10.00
Class 3.....	High School teachers.....	6.00	10.00
Class 4.....	Librarians.....	4.00	7.00
Class 5.....	Teaching principals four to seven rooms.....	4.00	7.00
Class 6.....	Teaching principals eight to fifteen rooms.....	4.00	7.00

These rates are lower than had been urged by some members of the administration and supervisory staff; on the other hand, they are higher than some officers thought necessary. However, these rates represented the consensus of opinion expressed in the conferences on the subject.

These rates were recommended only for the remainder of the school year, with a view of studying their effect during that time to determine whether they should be modified for the subsequent year. In the meantime administrative officers proposed to make a study of conditions of leave of teachers and rates of substitute pay in other cities.

Objections to the New Schedule

Immediately following the promulgation of the aforementioned new per diem rates for substitute service, a group of teachers addressed a letter to the board of education under date of

February 10th. In the first part of the communication it was asserted in substance:

"That the new schedule of pay for substitutes was adopted without opportunity for discussion by the teachers' council.

"That it is too high.

"That it was computed on the per diem basis and not on the annual basis as it should have been.

"That it grants no sick leave to the teacher with full pay.

"That it grants no sick leave to the teacher to pay the substitute more than the teacher earns in a given time."

Because of these alleged mistakes in the establishment of the schedule adopted by the board of education on February 4th, it was requested:

"That the operation of the new rules for pay of substitutes be suspended for a time.

"That the teachers' council be permitted to discuss the subject of pay of substitutes at an early date.

"That a hearing before the superintendent and the board of education be granted to representatives of teacher organizations and the teachers' joint legislative committee."

On February 19th, the teachers' council held a special meeting to consider the new rates of pay for substitutes. A spokesman for the teachers' joint legislative committee stated that "the teachers feel that the new scale of pay is planned to obtain a certain number of substitutes and not with a view of justice for the teachers." "A teacher's salary should not regulate the pay of a substitute for that teacher, as the work of the substitute is rarely adjusted to the work of the teacher whom she serves."

A spokesman for the grade teachers indicated that "the teachers whom she represents had for many years desired to see a decent status for substitutes." Her plea is for "substitute service established as a regular part of the school system."

It was emphasized that the matter of leaves of absence of teachers and officers should not bring into the foreground the question of the legal right of teachers to vacations from the close of school in June until the opening in September.

It was explained that the revision upward of the scale of pay for substitutes came from the officers in the field through the desire to get better substitutes. The problem of getting adequate leave with pay for the teacher is one of legislation in Congress.

After a discussion of the matter the following resolution was adopted by the council:

"Resolved, That since it is the sense of this meeting that the new rates of pay for substitutes are inconsistent and work unnecessary hardship, the board of education continue the old rates until after a conference.

"That the board of education meet with the teachers' council to consider qualifications, personnel and pay of substitutes.

"That a committee be appointed to formulate recommendations to present to the board at the joint meeting."

On February 28, 1925, the teachers' council held a meeting for the purpose of considering and taking action on the report of the special committee on substitute pay authorized at the last meeting of the council. Following is the report of the committee as it relates to the rate of pay and a comparison is instituted between the rates proposed by the teachers' council and the rates which had been adopted by the board of education.

NOTE:—The following is a digest made by A. C. Monahan, our Washington representative, of a report on this subject by Superintendent Frank W. Ballou of the District of Columbia Schools. The report was read by Dr. Ballou at a joint meeting of the school board and teachers of the city. It contains the results of a study made by Dr. Ballou in the District of Columbia and elsewhere.

That a flat rate of substitute pay for the first thirty days and a flat rate of substitute pay for the second thirty days, by basic salary groups, shall be adopted as follows:

Group	Teachers' Council	Board of Education
I—\$1400 basic salary—		
First 30 days.....	\$3.00	\$4.00
Second 30 days.....	4.00	7.00-\$5.50
II—\$1600 basic salary—		
First 30 days.....	3.50	5.00
Second 30 days.....	4.50	8.00-6.40
III—\$1800 basic salary—		
First 30 days.....	4.00	6.00
Second 30 days.....	5.00	10.00-7.50
IV—\$2000 basic salary—		
First 30 days.....	6.00	6.00
Second 30 days.....	7.00	10.00-7.50

Board Meets with Teachers' Council

On March 10, 1925, the board of education met with the teachers' council for the purpose of considering the question of revision of pay for substitutes. The report of the teachers' council recommending a reduction in the rate of substitute pay was placed before the meeting. Miss Mortimer called on various members of the teachers' council and others to discuss various aspects of the matter before the board.

When called upon for his views, the superintendent stated that in his judgment the arrangements for substitute service were not well conceived. The school system should bear the responsibility for procuring and paying substitutes. A limited period with full pay to teachers during absence on account of personal illness is desirable. In his judgment, the rules governing leaves of absence on account of personal illness should give preference to teachers who must be absent for a considerable time on account of personal illness rather than for a brief period of a few days. The superintendent further stated his chief concern was with respect to the instruction of the children, and that he was agreeable to the establishment of a rate of substitute pay providing good substitutes.

He further suggested that since the responsibility for procuring substitutes is with the officers in the field, that they be requested to submit statements as to their views on the matter of substitute service. The result was the refusal of the board to accept the scale offered by the teachers' council.

Board Rescinds Former Action

At a meeting of the board of education held March 18, 1925, the board reconsidered the matter of substitute pay and by a divided vote of four to three, approved the rate of pay recommended by the teachers' council given above. These rates of pay remained in operation from that time until December 31, 1925, when a new schedule was adopted. This is as follows:

Class, Group	Rate Per Diem
Class, Group A—Kindergartens and Elementary Schools, Basic Salary \$1,400.....	\$4.00
Class 2, Group A—Junior High Schools, Basic Salary \$1,600.....	4.50
Class 2, Group C—Junior High Schools, Basic Salary \$1,800.....	5.00
Class 3, Group A—High and Normal Schools, Basic Salary \$1,800.....	5.00
Class 3, Group B—High and Normal Schools, Basic Salary \$2,000.....	5.00
Class 4, Group B—School Librarians, Basic Salary \$1,400.....	4.00
Class 5—Teaching Principals, Four to Seven Rooms, Basic Salary \$2,300.....	4.00
Class 6—Teaching Principals, Eight to Fifteen Rooms, Basic Salary \$2,500.....	4.00

Annual and Per Diem Substitutes

With the beginning of the school year 1925-26, two kinds of substitutes are employed—annual substitutes and temporary or per diem substitutes.

The annual substitutes are paid an annual salary. They are appointed in a like manner as regular teachers, except that the appointment is for one year only, and that they are assigned to fields of service and not to particular schools. As their salary is provided for in the general appropriation, as are the salaries of regular teachers, they receive their pay from the school authorities and not from the teachers for whom they substitute. The absent teacher, however, loses the amount prescribed by the school board as daily pay for substitute teachers, the amount being deducted from her salary and reverting to the treasury of the United States.

The law providing for the employment of these annual substitutes is as follows:

Sec. 15. That the board of education, on recommendation of the superintendent of schools, is hereby authorized to appoint annual substitute teachers, who shall qualify for said positions by meeting such eligibility requirements as the said board may prescribe and who shall be assigned to the lowest class to which eligible for the type of work to be performed, but who shall not be entitled to the longevity allowance of said class: Provided, That the said board shall prescribe the amount to be deducted from the salary of any absent teacher for whom an annual substitute may perform service, and the amount so deducted shall revert to the Treasury of the United States in the same proportion as appropriations are made during the fiscal year for such absence and substitute service: Provided further, That the above authorization for the appointment of annual substitute teachers shall not be construed to prevent the board of education from the employment of other substitute teachers under regulations to be prescribed by the said board.

The regulations of the school board define four fields of service for substitutes—primary, intermediate, junior high and senior high. A separate list of annual substitutes is provided for each field. The general qualifications are:

TEACHERS IN ELEMENTARY SCHOOLS

Substitute Rate \$4.00 per School Day

Teacher's Salary		Pay of Substitute			Amount	Remaining for Teacher		
Annual	Monthly	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days	
\$1,400	\$140	\$ 40	\$ 80	\$ 92	\$100	\$ 60	\$ 48	
1,500	150				110	70	58	
1,600	160				120	80	68	
1,700	170				130	90	78	
1,800	180				140	100	88	
1,900	190				150	110	98	
2,000	200				160	120	108	
2,100	210				170	130	118	
2,200	220				180	140	128	

TEACHERS IN JUNIOR HIGH SCHOOLS

Substitute Rate \$5.00 per School Day

Teacher's Salary		Pay of Substitute			Amount	Remaining for Teacher	
Annual	Monthly	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days
\$1,600	\$160	\$ 50	\$100	\$115	\$110	\$ 60	\$ 45
1,700	170				120	70	55
1,800	180				130	80	65
1,900	190				140	90	75
2,000	200				150	100	85
2,100	210				160	110	95
2,200	220				170	120	105
2,300	230				180	130	115
2,400	240				190	140	125

TEACHERS IN SENIOR HIGH SCHOOLS, NORMAL SCHOOLS AND UPPER SALARY CLASS IN JUNIOR HIGH SCHOOLS

Substitute Rate \$6.00 per School Day

Teacher's Salary		Pay of Substitute			Amount	Remaining for Teacher	
Annual	Monthly	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days	Month of 10 School Days	Month of 20 School Days	Month of 23 School Days
\$1,800	\$180	\$ 60	\$120	\$138	\$120	\$ 60	\$ 42
1,900	190				130	70	52
2,000	200				140	80	62
2,100	210				150	90	72
2,200	220				160	100	82
2,300	230				170	110	92
2,400	240				180	120	102
2,500	250				190	130	112
2,600	260				200	140	122
2,700	270				210	150	132
2,800	280				220	160	142
2,900	290				230	170	152
3,000	300				240	180	162
3,100	310				250	190	172
3,200	320				260	200	182

"At least two years' service in the field in which the substitute is to serve.

"Professional, scholastic and personality qualifications shall be the same as those required of teachers in the same field.

"The age limit established for regular teachers shall not act as a bar in consideration of eligibility for the position of annual substitutes.

"Health, vigor and physical condition sufficient for anticipated service shall be determined by physical examination.

"Teaching service, recency, success, scope, professional training above required minimum, scholastic preparation, and physical condition," shall all be considered.

The law provides for the District of Columbia only 24 annual substitutes. It is, therefore, necessary to employ a certain number of *per diem* substitutes. The amount deducted from the pay of an absent teacher is the same, whether her place is taken by an annual substitute or by a *per diem* substitute. However, as there are no appropriations for the pay of *per diem* substitutes, the actual money deducted from the regular teacher must be used for this purpose. *Per diem* substitutes are paid, therefore, by the day for the actual days they work.

The absent teachers pay them at the rates established by the board.

How the Pay Schedule for Substitutes Affects Teachers' Incomes

The teachers in the Washington school system are employed at an annual salary paid in ten equal monthly payments. A teacher receiving the minimum salary of \$1,400 a year receives, therefore, \$140 per month. If absent from sickness for one day, she would lose \$4 and have \$136 remaining. If absent for ten days, she would lose \$40 and have \$100 remaining. If absent for twenty days, she would lose \$80 and have \$60 remaining. If absent for twenty-three days, the greatest number of school days in a month, she would lose \$92 and have \$48 remaining. If she were receiving the maximum pay of an elementary school teacher, \$2,200 or \$220 per month, she would lose the same amount per day paid to her substitute. If absent ten days, she would have \$180 remaining, twenty days, \$140, and twenty-three days, \$128. The following tables show the amount remaining for teachers receiving various salaries, if substitutes are employed for ten, twenty, or twenty-three days:

Substitute Pay in Other Cities

In order to have information from other cities on the question of substitutes' pay, Dr. Ballou telegraphed fifteen and received replies by telegram as listed below:

	City Rate for Elementary Schools	Rate for High Schools
Baltimore, Maryland.....	\$3.00	\$5.00
"Daily pay elementary substitutes, three dollars; junior high, three fifty; senior high, five."		
Buffalo, New York.....	5.00	6.00
"Grade substitutes who are normal school graduates receive five dollars a day; high school substitutes, six dollars."		
Chicago, Illinois.....	7.00	9.00
"Elementary substitutes paid seven dollars per day; high school substitutes, nine dollars per day."		
Cincinnati, Ohio.....	5.00	7.00
"Daily pay substitutes elementary, five dollars; high schools, seven dollars."		
Cleveland, Ohio.....	5.00-7.00	6.00-8.00
"Elementary substitutes, minimum, five dollars; maximum, seven dollars; high school, minimum, six dollars; maximum, eight dollars, depending on experience."		
Des Moines, Iowa.....	4.50-6.50	4.50-6.50
"Four fifty to six fifty, according to training and experience; same in elementary and high."		
Detroit, Michigan.....	7.00	8.00
"Elementary, seven dollars per day."		

(Continued on Page 138)



PART OF A CROWD AT A FOOTBALL GAME. SOUTH SIDE OF STAND, HIGH SCHOOL, CHARLESTON, W. VA.

High School Stadium of Charleston, West Virginia

H. E. Weber, Superintendent of Schools, Charleston

The rising tide of popularity of school and college athletics is not entirely due to the awakening interest of the people for clean competitive sport. Football was probably never more talked of than in 1904 when steps were taken to have a bill brought before Congress to abolish the game. The action of President Roosevelt saved football for the real judgment of the American people.

The discussion in those days was being participated in largely by people who did not know the game and had seen it played but very little. This was not because of their unwillingness to attend games but because there was no opportunity for them to attend. Facilities at our college athletic fields were usually so limited as to accommodate only the student bodies and alumni. The popularity of the game was necessarily confined to school adherents only. An outsider did not care to sit in a temporary, creaky, wooden bleacher on a wintry day, or stand angle deep in mud or snow to learn to like the game and its intricate plays. The big games were played on leased fields, usually baseball grounds that were inadequately arranged for football and did not allow a close enough view to attract the general public.

The larger schools soon began to realize the necessity of playing the games on the campus and providing proper seating. After the example set by Harvard, stadia, bowls, and modernly equipped athletic fields were established at most of the universities. The public, comfortably accommodated in extensive stands, patiently learned to like out-door collegiate sports. They became eager for games.

The contagion spread to high schools. In 1915 but few high schools had athletic fields. Complete equipment, concrete stands and comfortable accommodations for the spectators were almost unknown. Charleston, West Virginia, high school was not in the list of the select few. Games were being played wherever a field could be leased for the season and roped off. The board of education readily foresaw that a permanent field should be obtained to promote interest in school athletics. With a progressive city of 30,000 always enthusiastically supporting them they concluded to purchase ten acres in 1916 for about \$45,000. It was located about one mile from the high school. The ground was rolling and required considerable grading. The city was growing rapidly and the accompanying

school congestion, with the slow proportional increase in school funds, left little money available to complete the project then. Mr. Walton Venable, one of the board members and an engineer, offered to contribute his services, and under his personal direction the field was sufficiently graded and fenced to admit of playing in 1918. It was named Laidley Field in honor of Mr. George S. Laidley, superintendent of schools for over thirty years, one of the leaders in the movement.

Laidley Field was popular from the outset and the wooden bleachers were taxed to capacity during the first season. Work in grading and fencing kept progressing and in the fall of 1919 a concrete stand was erected to accommodate 3000. This capacity was more than double the largest crowd that had ever witnessed a game in Charleston and was the first structure of its kind in West Virginia. It is 280 feet long and sixteen rows high. It may be of interest to note that it was upon this field in 1919 that little Center College electrified the football world by defeating West Virginia University the week after the latter had conquered Princeton. This game placed Center College on the football map and created a desire in Charleston for an annual college game. The annual college game was obtained, a classic between West Virginia and Washington-and-Lee universities. The attendance at high school games rapidly increased and the addition of wooden bleachers raised the capacity from 4600 in 1919 to 9500 in 1923. At this date the junior high schools of the city were attracting as many spectators to their games as used to witness college games here ten years previously.

Besides the football field, a quarter mile cinder track had been built to accommodate the track and field teams of the city schools. At the close of the school term the field was very generously opened to the public for baseball. This was to serve a community need without additional expense to the community. An organized amateur Twilight League of twelve teams plays a game each evening during the summer. Seldom do less than 300 and very often 1000 spectators attend these games. No admission is charged and the league pays nothing for the use of the grounds.

After the football season of 1923 it was evident that something must be done to furnish additional accommodations for football. There

was no more room to erect wooden bleachers and the capacity had been reached in the most important high school games. Besides, some of the bleachers would soon need replacing, due to exposure. The Board of Education was in the midst of a building program and could not spare funds necessary to erect stands of a nature that the demand required.

All of these points were well understood by most of the progressive citizens of Charleston. They called a meeting and proposed to the board that they would form a stock company and build a stadium subject to the approval of the board. A committee was appointed to frame the details. The Charleston High School Stadium Corporation was formed to sell sufficient stock to build a concrete stand. The corporation was to finance the football season and from the surplus they were to pay six per cent interest on all outstanding stock and retire as much stock as possible each year. When the stand is paid for it is to become the property of the Board of Education; a lease for 25 years was given the corporation to accomplish this purpose.

The idea was enthusiastically received by the people. Plans were drawn for a reinforced concrete stadium, 402 feet long, 38 rows high and having a rear elevation of over 40 feet. The capacity was to be 10,280 divided into eleven sections. The field would then accommodate nearly 14,000 persons and eliminate all wooden stands.

Early in June a contract was let the Rust Engineering Co., of Pittsburgh, for completion on September twentieth. The last concrete was poured on that day. The contract price for the stand alone was \$54,000. This included the building of a club house under the stand, which contains four locker rooms with a total floor area of 24,000 square feet, a shower room with twelve showers, toilets, and a small emergency room or office. The structure is two stories high, reinforced concrete frame, partitioned with hollow tile and stuccoed. The floors are also reinforced. Besides the work included in the general contract, there were heating, lighting, and plumbing contracts. There was added a concrete walkway fourteen feet wide running the full length in front of the stand and separated from the field by a six-foot wire Cyclone fence. This keeps spectators off the playing field. Near the entrance under the stand there was built a ticket office and concession booth.



VIEWS OF THE STADIUM—LEFT: NEW STAND SEATING 10,500; RIGHT: FIRST CONCRETE STAND SEATING 3,000. HIGH SCHOOL, CHARLESTON, W. VA.

and near one end two toilets that accommodate about twenty people. All of these structures have concrete floors and stuccoed tile walls. All are roofed.

The seats for the stand are a departure from the customary. They are low benches fixed to sit on the concrete risers. When not in use they are stored on four large open platforms built of concrete between the columns and fifteen feet off the ground. The benches are lowered to these platforms through trap doors in the deck of the stand. In that way they are kept out of the weather nine months of the year, thereby increasing their life correspondingly. There are a thousand of these benches and their cost was not included in the general contract. All of these items brought the total cost of the project to approximately \$66,000.

That the project would be a success was demonstrated during the first season. From the dedication game between Charleston and Morgantown high schools early in October to the final game on Thanksgiving Day the attendance was always good. After paying the interest on the outstanding stock, the corporation in December, 1924, retired \$6125 of the stock and withheld \$1500 to be used toward building a new cinder track. At this rate the structure will pay for itself in about eight or ten years.

In the meanwhile the people of Charleston have an excellent field for any kind of athletics and pageants, and they have a direct interest in the activities that are held there. In the fall of 1925, besides the complete high school and junior high school schedules, there were two stellar major attractions, West Virginia University vs. Washington-and-Lee and the University of Kentucky vs. Virginia Military Institute.

There has been no effort or spirit on the part of the Stadium Corporation to misuse or commercialize their lease-hold. On the contrary, there is a more personal interest in the welfare

of the teams than ever before. Courtesy to the visitors is more pronounced. On one occasion last fall a local company entertained a visiting team during their stay in the city. Most of the stockholders are not even anxious for the interest on their stock. Some would have donated their amounts as cheerfully as they purchased stock. They do want fair, clean playing from their boys on the field and the influence of this demand is keenly felt by the players.

The balance wheel of this spirit is governed by a clause in the agreement between the stadium company and the board of education,

which gives the latter the right to assume control at any time by retiring the outstanding stock and thereby closing the lease hold. The spirit of every one concerned in the project is best described by the legend on the dedicatory tablet over the entrance:

"Erected in 1924 by the Charleston High School Stadium Corporation in appreciation of the excellent spirit of the C. H. S. teams of the past; dedicated to the promotion of clean athletics by teams of the future and to the encouragement of good sportsmanship among the spectators."

Making a Reserve Fund of the School Board Journal

Harold W. Smith, Glendale, Ariz.

The idea of indexing articles appearing in the School Board Journal, to make them more readily available for future use first occurred to me about a year ago when I had occasion to look through back numbers of the magazine in search of material on the subject under consideration, but at the expense of considerable time spent in looking through forty or more numbers of the magazine, accumulated during the previous four years. The volume and quality of material found convinced me that time spent in listing and indexing articles in the magazine would be repaid with interest.

The system is very simple. I went through back numbers of the magazine and listed articles on 4"x6" cards according to subject dealt with. The cards were then filed alphabetically. One or two illustrations will serve to make the system plain. Turning to "S" in the index and selecting two cards marked "Superintendence" we find articles listed as follows:

Superintendence			
	Mo.	Yr.	Page
The Superintendent as a Subordinate			
sees Him	Aug.	'22	40
Salaries of Rural Superintendents	Nov.	'22	48

Finding and Holding a Small Town Superintendent	Mar.	'23	48
Superintendents Old and New	Mar.	'23	50
The Superintendent and the Small School	April	'23	40
Duties and Restrictions of a City Superintendent	April	'23	43
The Superintendent's Relation to his Board	Aug.	'23	37
A Budget of Advice for Young Village Superintendents	Sept.	'23	34
Function of the Superintendent in Theory and Practice	Oct.	'23	40
Ethical and Business Policy of the Superintendent	Nov.	'23	47
Training and Experience of New England Superintendents	Mar.	'24	55
Department of Superintendence at Chicago	April	'24	55
High Spots in the Chicago Meeting	April	'24	57
The Selection of a Superintendent	June	'24	36

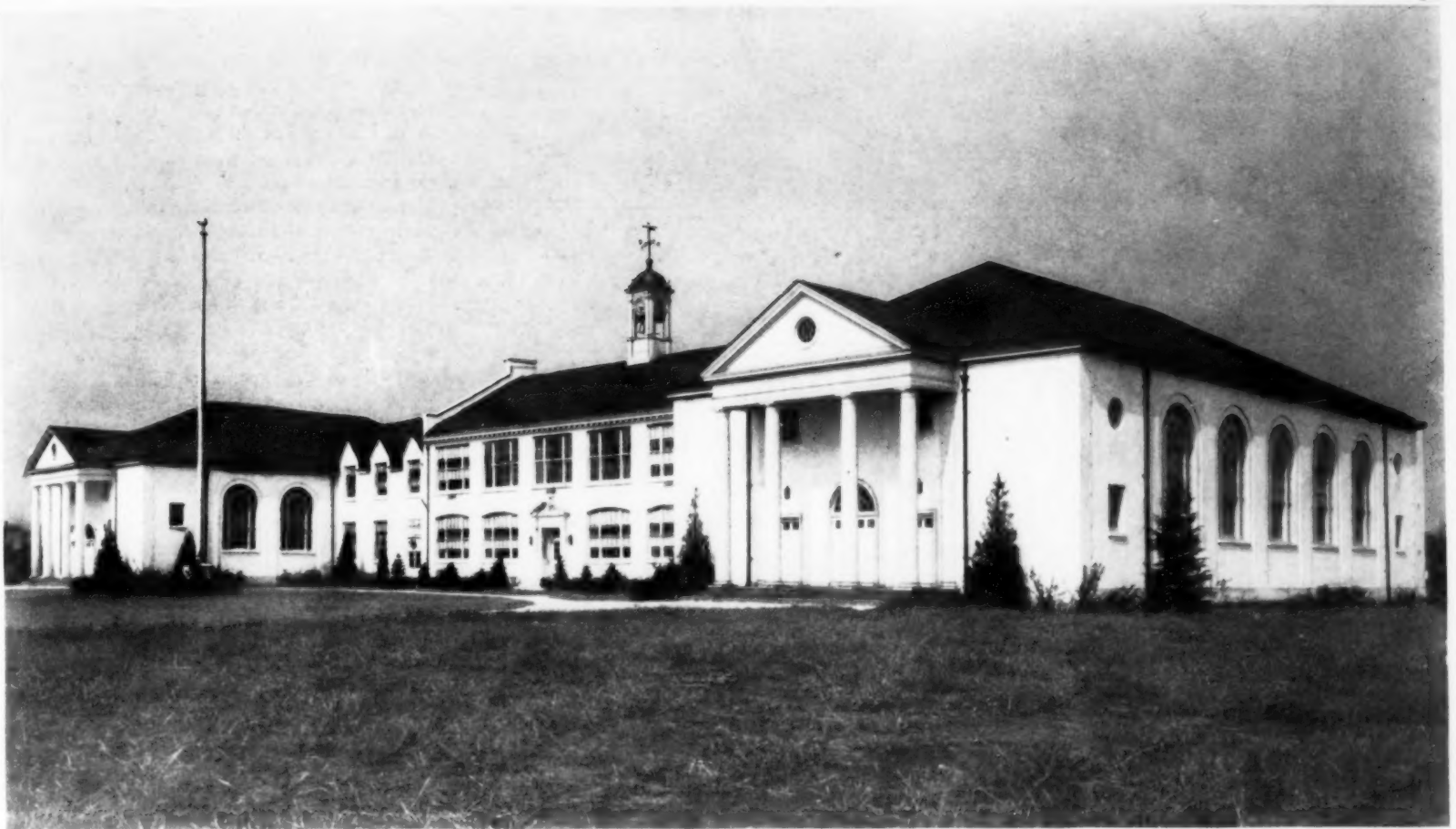
There are other cards on this same subject, but this will suffice to show the system used. Articles are listed according to content rather than by author. Some articles are listed in more than one place. For instance, the second article above is also listed under "Salaries".

The cards are kept in a small box which is readily accessible. I make it a practise to list articles as they are read, or immediately before filing the magazine. Articles which do not appear to have any particular value to me for future use are not listed.

Of almost equal importance with the listing of articles is the matter of filing the magazine away so that it will be readily accessible. The magazine is so large as to make an unwieldy volume when several numbers are bound together. The following plan for filing the magazines away unbound has proven satisfactory. I had the manual training boys make a section of shelf 28" long, 16" high, and 11" deep and divide it into ten spaces 2 1/4" wide by upright partitions 3/8" thick. Six magazines will fit readily into one of these compartments, allowing ample room to remove or replace the magazine freely yet being sufficiently compact to keep them upright on the shelf. This provides space for sixty numbers of the magazine, covering a period of five years. The sections are labeled as, "Jan. to June, 1922", and the magazines are placed in regular order making it very easy to locate and remove any number desired.



REAR VIEW OF THE NEW STAND AT THE HIGH SCHOOL, CHARLESTON, W. VA.



HICKSVILLE HIGH SCHOOL, HICKSVILLE, L. I., N. Y.

Coffin & Coffin, Architects, New York, N. Y.

Better School Architecture in Towns and Small Cities

H. Errol Coffin, B.S., A.I.A., New York

Inasmuch as the schools erected in the smaller cities and towns far exceed in numbers the schools in larger cities, their architectural influence is widespread and therefore worthy of consideration.

Because of the relatively small remuneration as individual commissions, or as a result of political or local influence, these schools, with few exceptions, have not been designed by the better trained and equipped architects, which may account for their usual mediocre results.

What more benign influence to develop good taste and an appreciation of beauty could be desired than a well designed, decorated and furnished school in attractive surroundings? This influence daily and involuntarily affects our future citizens in their most impressionable and imaginative period of youth. This impressionistic tendency is aptly illustrated by that well known schoolmaster, Angelo Patri, which

tells of a boy who defined the equator as "a menagerie lion running around the earth."

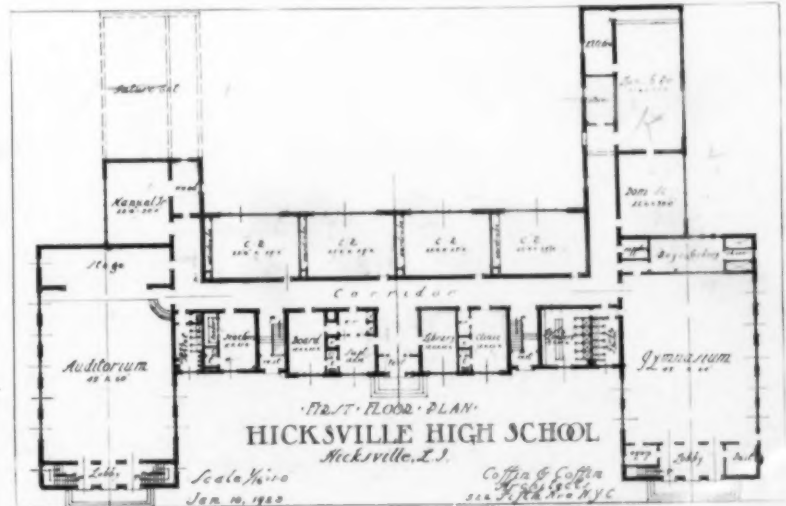
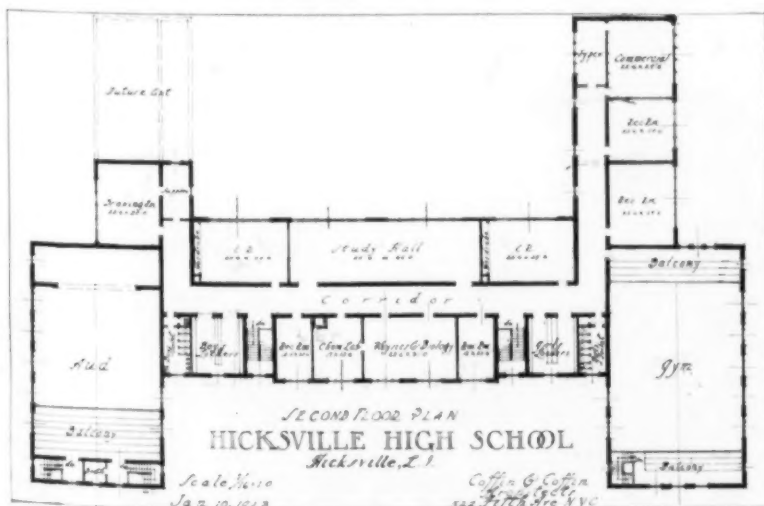
There has been in the last twenty years, great progress and change in school construction, planning and administration. These improvements, now recognized as standards, have become so well known that they need not be described here. They have, however, made the architect's problem more difficult, thereby necessitating greater thought and ingenuity to produce a building both workable in all detail and at the same time attractive. This does not necessarily mean elaboration of detail or expensive ornamentation—rather proper fenestration, scale, and design relative to location.

Classroom windows grouped as they should be make the structure difficult to handle architecturally. There is no indigenous architecture in which great groups of windows are pleasing. This no doubt accounts for the use of the

exotic Tudor style so prevalent in our city schools. It may be said that the classroom is the unit that properly expresses the character of the building, and should be in evidence. This no doubt is true of a grade school, but is not applicable to modern high schools where the rooms of special instruction and administration frequently exceed the classrooms.

There have been developed so many requisites of plan arrangement that very frequently one or more serve as an aesthetic antidote to others. Orientation is a great factor in this respect, directly influencing the plan and design of all the structures illustrated—as it should in all schools.

A recent popular appellation of the word school is "plant". This term seems exceedingly obnoxious. It is conceded that administration and system are necessary, but do not call the school, or make it a "plant", which is synony-





mous with "factory", even though countless schools have that appearance. A great many of the children will go into the factory at an early age, without bringing the factory to school. The school is the house of the child during most of his hours awake and should have a more homelike atmosphere than is customary. The average small school apes that of the city and is generally too monumental or large in scale.

The most vital factor relative to appearance is the evolution of a design for a building that fits the physical and artistic conditions of the site and locality, i. e., to really put up a building that looks as if it belonged in its location. Frequently the very factors such as irregularity of contour or orientation are assets if intellectual study is used in solving the problem. It is, however, next to impossible to design a school of the type discussed, on a large plot in a small city, or in a rural or suburban district, with a flat roof. The roof should be of the pitched type for the building to appear happy in its surroundings. The smaller the building, and the more natural the site, the more pertinent this becomes.

When a school of fine architecture is attained, to complete the ensemble necessitates well maintained lawns, play spaces, walks, judicious planting, and care of trees and shrubs.

HICKSVILLE HIGH SCHOOL, HICKSVILLE, L. I., N. Y.

The Hicksville school is located on an eleven acre plot, which is ideal from a standpoint of plot development. The plot is level and regular, with a loamy top soil and excellent sub-drainage, owing to an underlying strata of sand and gravel.

The size and contour of the plot allowed the architects to plan a building with a long rambling facade of low effect, and at the same time to provide for future extensions without sacrificing the development of the athletic field at the rear. An athletic field is an important and necessary adjunct to a central school in a



DETAILS, HICKSVILLE HIGH SCHOOL, HICKSVILLE, L. I., N. Y. Coffin & Coffin, Architects, New York, N. Y.



SARATOGA SPRINGS HIGH SCHOOL, SARATOGA SPRINGS, N. Y.

Coffin & Coffin, Architects, New York, N. Y.

small town, and this site, because of the nature of its soil, could be developed at a low cost with ample room for football field, baseball diamond, tennis courts, playgrounds, etc.

The building is of stucco, inasmuch as sand and gravel are so prevalent in this section of Long Island. This is not only an economical factor, but most buildings seem to appear better when made of a local material.

In planning the building it was necessary to provide for good school administration, and at the same time provide for community use of the auditorium and gymnasium. These were placed at either end of the front facade, and may be completely segregated from the school when used for community purposes, as these wings are not only segregated in plan, but are supplied by independent heating systems.

The building is entirely fireproof in construction, with exterior in Portland cement stucco. Foundations are of concrete. Exterior bearing walls of brick and hollow tile.

Floor covering is $\frac{1}{4}$ " standard naval specification battleship linoleum, applied directly to the concrete slabs, with the exception of the gymnasium which is of maple; and foyers and stair halls which are of colored Spanish tiles.

The heating and ventilating plant is steam, in combination with a system of units in various rooms.

The building was erected at a unit cost of forty-five cents per cubic foot, or a total cost of \$294,263.18. Based on the estimated pupil capacity, the cost was about \$660 per pupil.

**SARATOGA SPRINGS HIGH SCHOOL,
SARATOGA SPRINGS, N. Y.**

Charles L. Mosher, Superintendent of Schools.
Coffin & Coffin, Architects,
New York, N. Y.

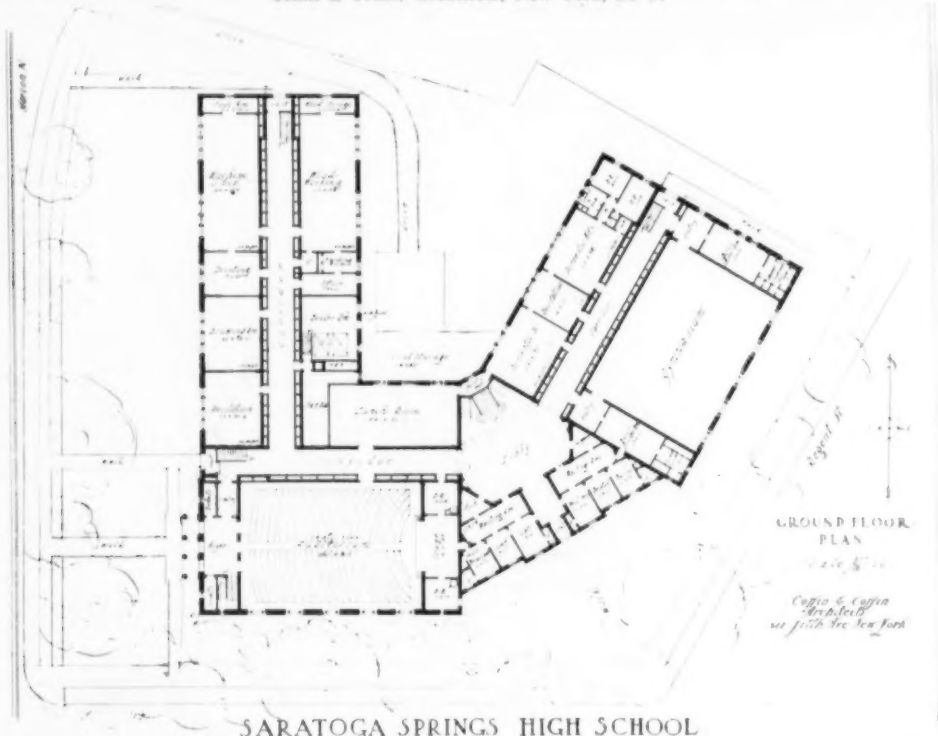
The new Saratoga Springs high school, which was occupied for the first time in December, 1924, offers a number of points of unusual interest to schoolmen in general and to architects in particular.

The site selected was irregular in shape, bounded by three streets but with two of them

ENTRANCE DETAIL, SARATOGA SPRINGS HIGH SCHOOL, SARATOGA SPRINGS, N. Y.
Coffin & Coffin, Architects, New York, N. Y.



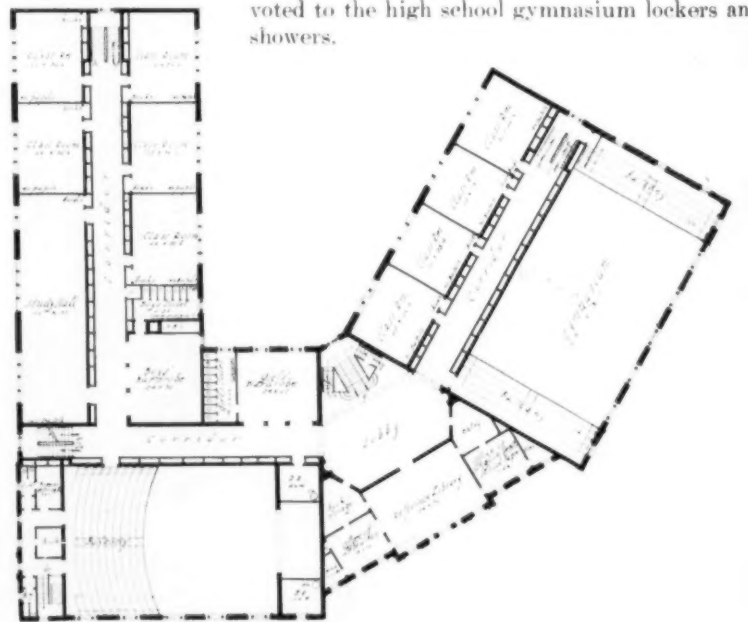
MAIN CORRIDOR DETAIL, SARATOGA SPRINGS HIGH SCHOOL, SARATOGA SPRINGS, N. Y.
Coffin & Coffin, Architects, New York, N. Y.



SARATOGA SPRINGS HIGH SCHOOL



FIRST FLOOR PLAN.
SARATOGA SPRINGS HIGH SCHOOL, SARATOGA SPRINGS, N. Y. Coffin & Coffin, Architects, New York, N. Y.



SECOND FLOOR PLAN.

meeting at an angle quite a bit greater than 90 degrees. The site gave the architects a considerable problem since it was not as large as would have been desirable for a building to accommodate upwards of a thousand pupils.

The architects were selected after a tentative competition. For this each was supplied with a schedule showing the pedagogical needs which were to be met by the city. This schedule and analysis were made as complete as possible and the architects were asked to provide a building suitable for the site offered and of a capacity of about a thousand pupils. The board of education, after the most careful deliberation and after explanation and presentation of plans by the architects concerned, selected Messrs. Coffin and Coffin. It seemed quite clear that their plans were not only attractive in appearance, adequate in what they furnished, successful in interior arrangement, lighting, etc., but that the plans made the fullest use of the irregular site. It seemed that these plans would give a building meeting the very latest approved standards, fulfilling the local needs of the building, and at the same time furnishing an attractive and suitable structure from the standpoint of appearance and position upon the plot.

It was evident that this matter was given careful consideration for the final plan places the main sections of the building facing the axis of the large angle at which Lake Avenue and Regent Street meet, with a wing as one faces the building to the right on Regent Street, another to the left on Lake Avenue, and a wing from the Lake Avenue part along Marion Place, giving a modified U-shaped building with a maximum of light and air. The architects have accomplished this, leaving considerable lawn space. The front of the building is 56 feet from the sidewalk and on the Marion Place side 40 feet is left; a little less is found on Lake Avenue and Regent Street, but with a fine lawn and concrete sidewalks and coping, with well-placed shrubbery and other decorative features, the building now presents a most attractive appearance.

Among the important features perhaps the first to be mentioned is the auditorium, which is on the ground floor on the Lake Avenue wing of the building, with a capacity of more than eight hundred. The room has proved to be almost perfect acoustically and its proportions are such that it is most attractive to speakers and useful for any type of entertainment.

Balancing the auditorium in the Regent Street wing is a fine gymnasium, also on the ground floor. There is no basement in the building except that small section where the boilers are found, in the center, and a room devoted to the high school gymnasium lockers and showers.



NORTHPORT UNION HIGH SCHOOL, NORTHPORT, L. I., N. Y.

Coffin & Coffin, Architects, New York, N. Y.

One of the important elements in the arrangement of the building is in connection with the provision for wardrobe space. Upon each of the three floors two wardrobe rooms are provided, one for boys and one for girls. These rooms are commodious and are not separated from the wide hallways at all. It has been found that this arrangement makes special supervision unnecessary. To have large open spaces of this sort instead of the cramped cloak-rooms often found and instead of the complete concentration which is sometimes caused by locating all wardrobe facilities in the basement is a very noticeable advantage in the operation of the school. The arrangement leaves the hallways clear, which facilitates change of classes and general movement and concentrates the pupils for wardrobe purposes in a number of large groups. These groups are not too large for convenience or operation. The arrangement avoids the bad features of any type of small cloakroom connected directly with each classroom. The operation of the school seems to indicate that this scheme is more successful than any other yet devised.

The building contains an unusually commodious suite of science laboratories, including a lecture room, as well as large rooms for the commercial department. Two study halls are provided and the library, situated at the very center of the building, at the front on the middle floor, also accommodates some forty pupils not in recitation.

The floors are concrete, with a mastic covering, which makes them noiseless and gives an excellent appearance. They have not become smooth and seem to users particularly satisfactory.

Manual training shops are provided on the ground floor, while on the top floor are rooms for domestic science and domestic art, including a model suite. Connected with the principal's office and the gymnasium, on the ground floor, is the health room, devoted to the purposes of medical inspection and other health activities.

The opening of the school was the occasion of receiving gifts from many of the civic, educational, and patriotic organizations of the city as an expression of their interest in education and in the young people who would use the building. The health room was furnished complete both as to furniture and apparatus and equipment, by the American Red Cross. The domestic science suite was furnished complete

by the Parent-Teacher Association. The teachers' room, which is next the library, was furnished by the College Women's Club. A tower clock was given by an interested citizen as a memorial, and a flag for the building, and a number of flags for the auditorium, as well as

a cyclorama and stage curtain were provided by different groups of people.

Probably the most striking thing about the building is one which would be quite unnoticed by any except teachers or administrators, and that is the ease of operation. Its somewhat pe-



ENTRANCE DETAIL, NORTHPORT UNION HIGH SCHOOL, NORTHPORT, L. I., N. Y.

Coffin & Coffin, Architects, New York, N. Y.

cular shape and arrangement, instead of being an embarrassment in this particular seems to be an advantage; at any rate, there has been little difficulty, in fact, there has been no difficulty on account of transfer of pupils at change of classes, dismissal and other times. It was quite surprising to those in charge of the school to have it operate so successfully and smoothly from the very beginning, a fact which speaks volumes for the excellence of arrangement and for the thought and care given by the architects to matters so often neglected.

The building was erected at a unit price of thirty-five cents per cubic foot, or a total cost of \$414,839.59. On the basis of the estimated pupil capacity, the cost was \$550 per pupil.

GRADE AND HIGH SCHOOL, NORTHPORT, L. I., N. Y.

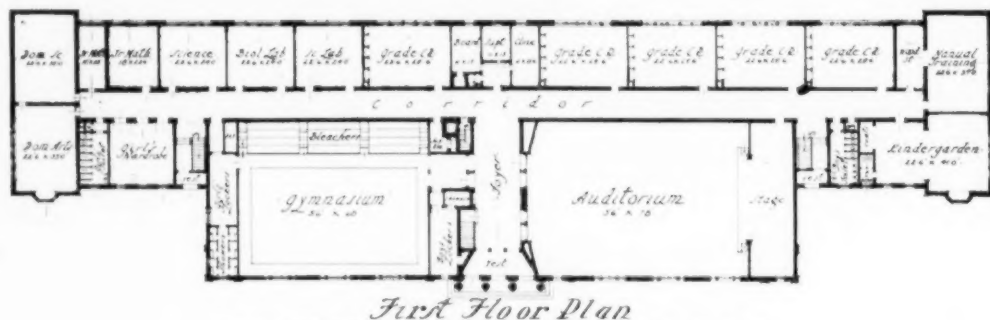
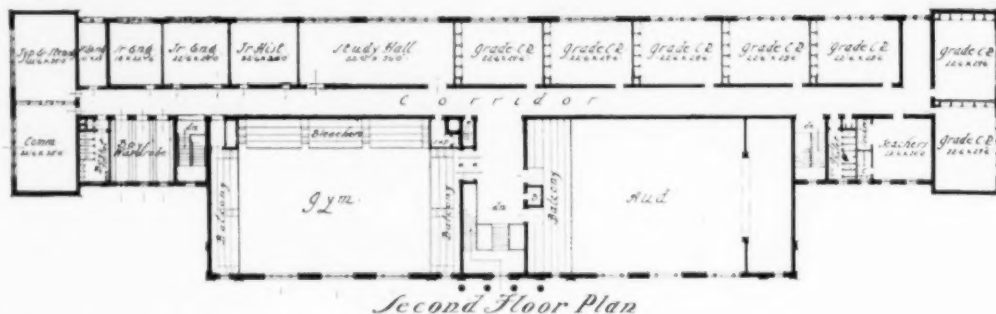
The school at Northport, L. I., N. Y., was designed from careful study of present and future school needs, and the need of the community for a building that could be used for general town purposes. The site has a slight elevation above the street, and faces slightly north of west.

In ideal school planning, orientation is a very important factor, and of all lights, that from the southeast is best. Because of this, all classrooms were placed on the easterly elevation, and the auditorium and gymnasium on the westerly side.

The school is a combination grade and high school, and these have been completely separated by the placing of all grade rooms at one end of the building, and the high school at the other end.

The kindergarten is used by smaller children, who should not be forced to mix with the grades, and so was placed at the southerly end, adjacent to the grade wing. It is completely equipped with separate toilets, wardrobes, store rooms, etc., and has a delightful southern and western exposure, with a bay window, all of which are desirable in kindergarten work. In floor plan, an alcove classroom has been provided adjacent to the main kindergarten room, enabling the teacher to separate the more advanced pupils.

All grade classrooms are provided with wardrobes of the disappearing door type, and the



NORTHPORT HIGH SCHOOL, NORTHPORT, L. I., N. Y.
Coffin & Coffin, Architects, New York, N. Y.

high school portion has locker space adjacent to the main corridors.

The domestic science and arts rooms are placed adjacent to each other, and form a complete unit at the end of the high school wing. The commercial department also is combined in a complete unit, affording ideal school administration.

The gymnasium and auditorium are at the front of the building, and easily accessible for community purposes. The arrangement is very economical, in that the one central entrance foyer serves as a common entrance for auditorium, gymnasium, and school building. The gymnasium has permanent bleachers on three sides of the room, affording ample seating capacity for athletic contests such as basketball, etc. The auditorium is completely equipped with motion picture booth, modern stage lighting including footlights, proscenium arch lights, Kliegl plugs, etc., and is also provided with orchestra space at front of stage.

The building is of fireproof construction, and exterior is of red face brick, with cast stone trimming.

The heating and ventilating system is the direct-indirect steam plant, with a central fan blower and all heating apparatus is governed by a thermostatic control.

The school is completely equipped with a standard time clock system, intercommunicating telephone system, electric fire alarm apparatus, fire lines, hose racks, etc.

The building was erected at a unit cost of forty-three cents per cubic foot, or a total cost of \$359,876.00. On the basis of the estimated pupil capacity, the cost was \$600 per pupil.

OWEGO HIGH SCHOOL, OWEGO, N. Y.

The new high school at Owego, N. Y., was opened for school purposes in the fall of 1924. The restricted area of the site, together with its location, presented difficult problems in procuring good school planning in conjunction with good architecture.



CORRIDOR DETAILS, NORTHPORT UNION HIGH SCHOOL, NORTHPORT, L. I., N. Y.
Coffin & Coffin, Architects, New York, N. Y.



ENTRANCE DETAIL, OWEGO HIGH SCHOOL, OWEGO, N. Y.
Coffin & Coffin, Architects, New York, N. Y.



OWEGO HIGH SCHOOL, OWEGO, N. Y.

Coffin & Coffin, Architects, New York, N. Y.

The school property is bounded on two sides by streets—the building facing north on the more prominent street. The other street has enormous shade trees which form a veritable light barrier. Such factors precluded the placing of classrooms on these facades, and therefore the administration on the first floor, and laboratory on the second floor (with auxiliary overhead lighting) were placed in the front of the building, and the auditorium at the side. The result was well-lighted classrooms and a most interesting appearance.

In Owego, and throughout the surrounding country, the most interesting buildings were erected during the Greek Revival Period. Consequently, this influenced the design of the new school as will be noted by an examination of the front entrance and cornice. A building of

pleasing harmonious design was the result inasmuch as good architecture has been combined with practical economical construction.

The planning and location of the schoolrooms take into careful consideration the particular requirements of that city and adjoining country side. Owego is the center of an agricultural section, with dairying and stock raising as the principal occupation. For this reason the agricultural shops and auxiliary rooms were of great importance, and were carefully placed where access could be obtained directly from the schoolyard.

The building is of slow-burning or semi-fireproof construction. All corridors, entrances, stairways, etc., are fireproof. Classroom construction is of wood beams with rough floor and finished maple flooring. Roof framing is of

wood. All floor and ceiling beams are protected from fire by three-coat plaster work, applied over wire lath. Foundations are of concrete, and all exterior and bearing walls are of brick and hollow tile construction.

The building is heated and ventilated by direct-indirect heating system, using a central fan.

The school is equipped with best type of sanitary toilets and drinking fountains, a standard program clock, electric fire alarm system, fire lines and hose racks, and numerous other appliances which characterize modern schools.

The building was erected at a unit cost of thirty-two cents per cubic foot, or a total cost of \$259,604.00. Based on the estimated pupil capacity, the cost was approximately \$500 per pupil.



BASEMENT PLAN.

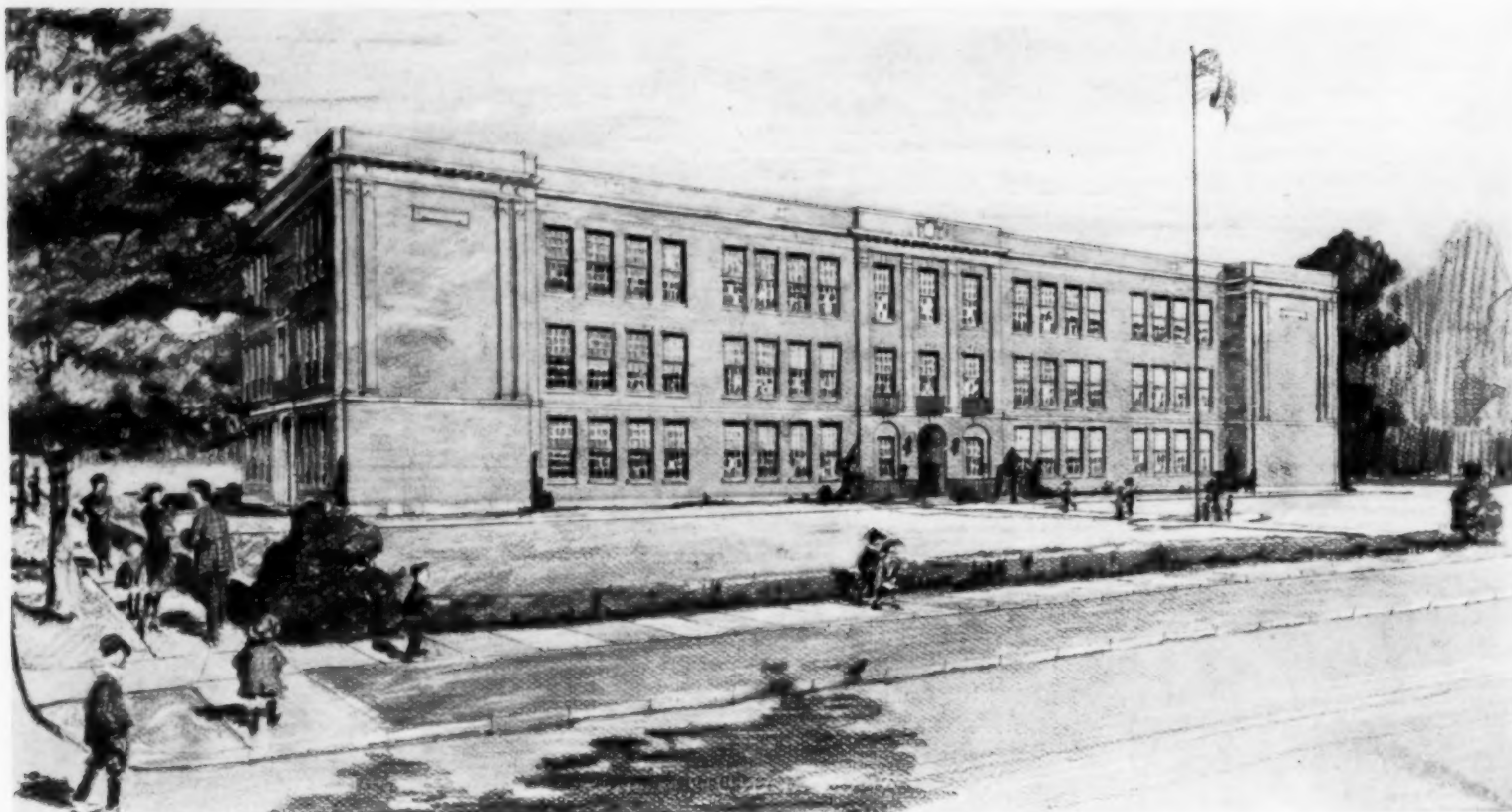


FIRST FLOOR PLAN.

OWEGO HIGH SCHOOL, OWEGO, N. Y. Coffin & Coffin, Architects, New York, N. Y.



SECOND FLOOR PLAN.



STANDARD SCHOOL BUILDING, CLEVELAND, OHIO.

A Standard Elementary School Building Adopted by Cleveland

George M. Hopkins, Architect of the Cleveland Board of Education

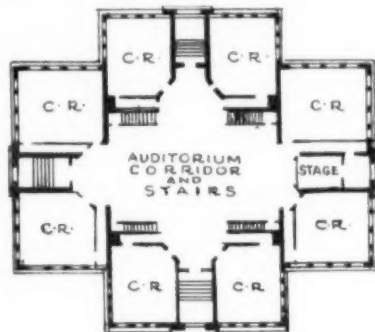
The board of education of the city school district of Cleveland has recently adopted standard building plans for a 30-room elementary school building, which are expected to considerably reduce building costs. Previous to the adoption of the plans, a study was made by the writer of the various types of structures erected in the past and a great deal of helpful information was collected and used in the preparation of the recommendations for the standard building adopted.

The general idea of adopting a standard building is to speed construction, to save production costs of designs, to permit of quantity purchasing, to provide buildings to suit the development of the needs of education with some degree of uniformity, and to save capital outlay and operating funds provided for the city school district.

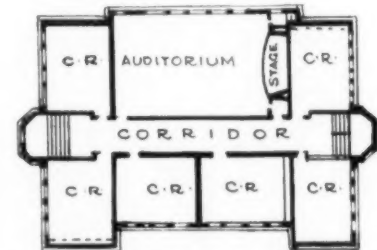
The idea is an admirable one but not altogether new in the Cleveland system, and during past years various types have been adopted at different periods for certain periods of time to take care of the then existing needs of education. Several types were duplicated many times, others less frequently; and there appears to have been a marked tendency at the different periods to establish the physical requirements for educational needs on a uniform basis.

It is reasonable to presume now that to save money by the procedure proposed that no harm will result to education, but on the other hand education should benefit through a certain degree of uniformity during the period through which present ideas will be maintained.

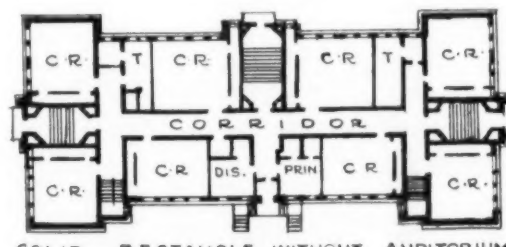
Standardization need not mean necessarily that the city will be "rubber stamped" by multiplication of the accepted idea, because in this respect it would be a certain detriment to education from an aesthetic point of view if too many duplications were made of the same exterior architectural treatment. Of course, it is possible to obviate this by preparing additional designs of different architectural styles made



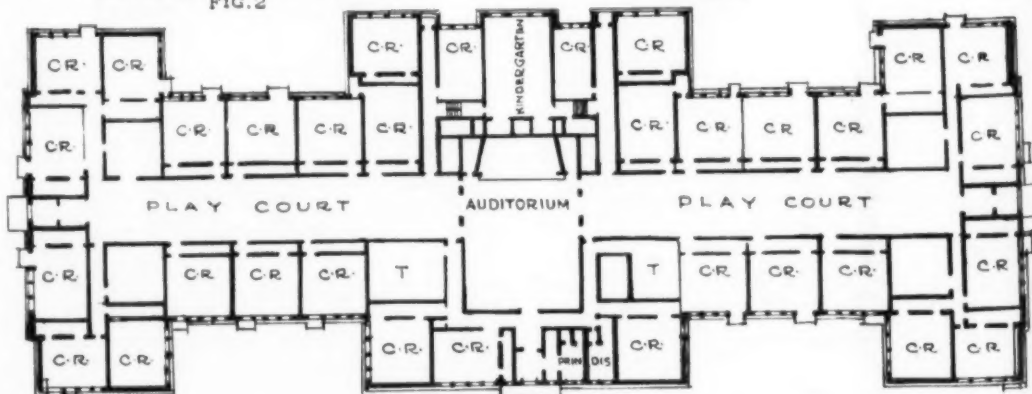
SOLID RECTANGLE
GORDON SCHOOL
FIG. 1



SOLID RECTANGLE WITH AUDITORIUM
ANTHONY WAYNE SCHOOL
FIG. 2



SOLID RECTANGLE WITHOUT AUDITORIUM
GLADSTONE SCHOOL
FIG. 3



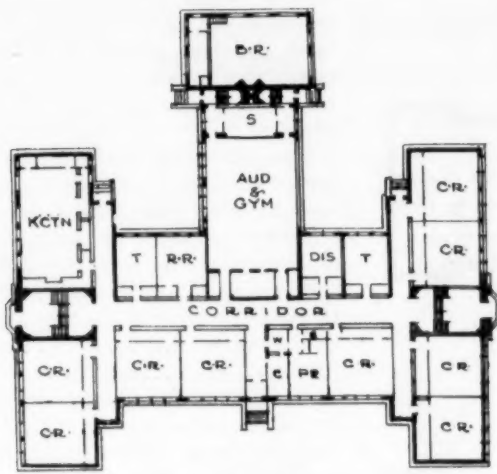
ONE STORY TYPE
BRETT MEMORIAL SCHOOL
FIG. 4

applicable to the adopted plan. This can be done without materially affecting the object to be attained and, it is safe to say, without any appreciable difference in cost.

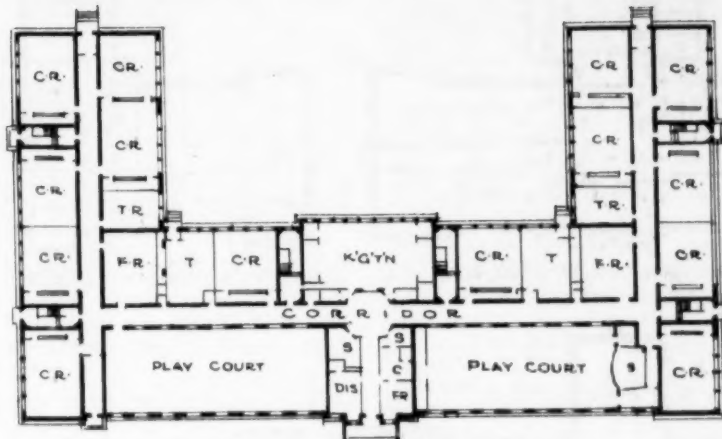
In any event, in many cases, certain minor changes will have to be made in the buildings due to variations at the various sites, different conditions of approaches and surroundings, all of which must be made to conform to the grades and conditions of the various locations purchased.

Types of Elementary Schools Already Erected

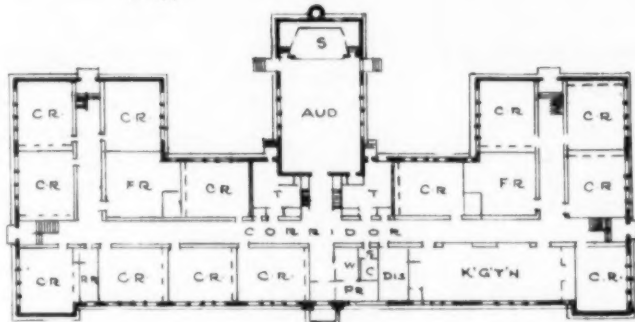
It would seem beneficial before proceeding with the discussion of the suggested building to comment on the many different types of elemen-



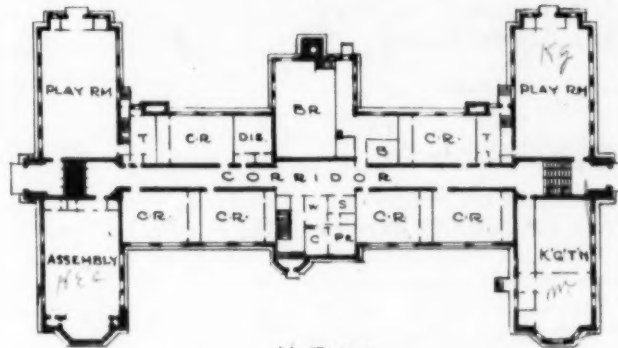
H-E-TYPE
HENRY W. LONGFELLOW SCHOOL
FIG. 5



U-TYPE
TWO STORIES-NO BASEMENT
PAUL REVERE SCHOOL
FIG. 6



E-TYPE
TWO STORIES-NO BASEMENT
FIG. 7



H-TYPE
CENTER PORTION-3 STORIES
WINGS-2 STORIES
FIG. 8

TYPES OF CLEVELAND SCHOOL BUILDINGS STUDIED BY THE AUTHOR.

tary school buildings erected in the Cleveland system. By different is meant the general plan arrangement of the component parts as well as the kind, number, and relation of one to the other of those components.

The accompanying plans show the different expressions and ideas of different architects and educators extending over a period of more than 60 years, and an investigation reveals some very interesting features in the evolution of school-houses both as to plan and materials of construction used. It is the benefit of past ideas, together with the visualization of new ideas and requirements that helps materially in the formation of recommendations for a new standard.

The first Cleveland schools consisted of rectangular blocks in plan, with center corridors of medium width. Later came the rectangular block buildings with wide center corridors large enough for assembly purposes, the second-floor corridor containing a light well to provide light from a skylight above, to the first floor below.

After this, several buildings of rectangular shape were again built with narrow corridors. Some of these buildings contained an auditorium built within the main walls and a gymnasium in the basement.

Later there followed buildings of various shapes including the "E" type of the Empire school, the oblique wing type of the Rawlings school, the one-story type of the Brett Memorial school, the combined H-E type of the Longfellow school, and the "U" type of the Paul Revere school.

Buildings of the first group were built of non-fireproof construction, consisting of wood joist floors and wooden stairways. The only exits from the classrooms were into the corridors leading to the wooden stairways; no fire escapes of any kind were provided. It is of interest to note that of late years thousands of dollars have been spent to make all these buildings as safe as possible for occupancy by providing an exterior iron fire escape from every classroom and replacing many wooden stairways with fire-resist-

ing material. A peculiar fact about these original buildings is that many were built with the corridor at a different level from that of the classrooms which they served and this necessitated several steps outside the classroom doors to reach the classroom level.

The ceiling height of the rooms was considerably in excess of the needs, and the classrooms were a great deal larger than is considered today, by some, a proper sized room. Many buildings were built with windows on two sides of the rooms and this arrangement, which, according to present practice is considered a defect, is also to be found in buildings of a later group. It has been found necessary in some cases to block some of the openings to save the eyesight of the children from the glare of the light.

All buildings were provided with basements under their entire area. These basements contained the furnaces, coal storage space, and toilet facilities, and the balance of the space was mostly wasted. All buildings were constructed with pitched slate roofs with dormer embellishments, all of which are a considerable source of expense each year for upkeep and repairs. Heating, and what ventilating it may have afforded, was always in the form of hot air from furnaces, supplied to the rooms through vertical brick flues by gravity.

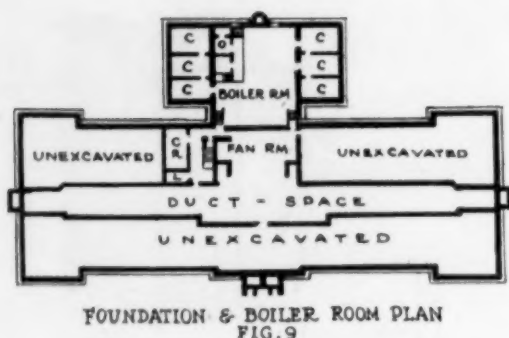
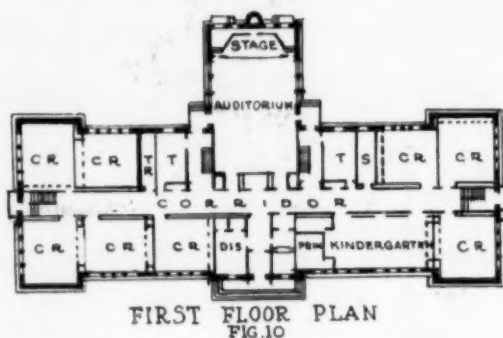
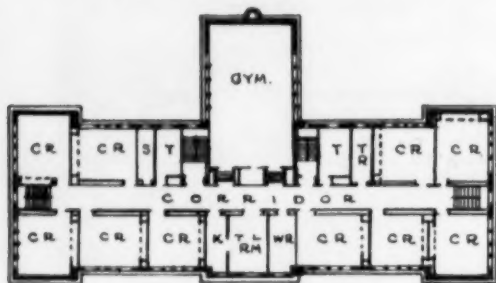
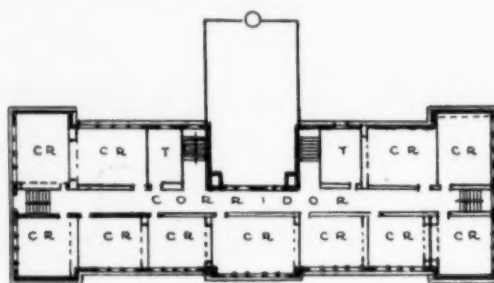
When the rectangular building of the Gordon type (Fig. 1) was evolved, the main new feature appears to be the enlarged central corridor, flanked on all sides by classrooms. This corridor presumably was to serve as assembly hall on the first floor. Whatever the idea may have been for adopting this arrangement, presuming that the school was operated on a straight classroom basis, it was a step backward from the point of view of economy from the original scheme. This large central hall appears to have been the first attempt at providing an assembly hall, and schemes to take care of assembly requirements followed by reducing somewhat the size of the center hall (retaining the same shape, however, for corridor purposes) and construct-

ing over the entire area of the building on the third floor, one large room to be used for assembly purposes.

This arrangement did not appear to be the correct solution of the problem, so the next type of building, the Chesterfield school, (a duplicate of Anthony Wayne school, Fig. 2) provided for both a narrow corridor and an adjoining auditorium on the first floor, with classrooms covering the entire area of the building on the two upper floors. This development again changed the number of square feet of floor area and cubic feet of building per pupil when considered on a per capita basis, but without question it was a better planning arrangement than the previous two schemes. The auditorium in the Chesterfield school was one story high like the adjoining corridor and classrooms. We have a further development of this same auditorium idea in its relation to the general plan of the building at the Almira school, where the general scheme of the building is similar, except that the auditorium extends up to the ceiling of the second floor. This scheme again changes the number of cubic feet per capita necessary to construct the building.

The Chesterfield school (Fig. 2) can be considered more or less a modern building. Previous to its erection the evolution of heating and ventilating had been steady, so also methods of construction had progressed; there had been developed various fan systems of ventilation and fireproof construction.

During later periods we find a variety of plans which represent the greatest extremes in idea, no doubt developed, however, on account of certain theories accepted for the solution of educational needs. We have, for instance, a plan differing entirely from those heretofore mentioned, expressed by the Rawlings school. The departure in layout here consists of a center unit out of which branch two wings on either side at an obtuse angle. The corridors serve classrooms one side only. The other side of the corridor is a blank exterior wall, a part of the

FOUNDATION & BOILER ROOM PLAN
FIG. 9FIRST FLOOR PLAN
FIG. 10SECOND FLOOR PLAN
FIG. 11THIRD FLOOR PLAN
FIG. 12

ADOPTED STANDARD ELEMENTARY SCHOOL

center unit being taken up by the auditorium.

Then again we have the departure expressed in the Empire school building which consists of a three-story "E" shaped building with the auditorium formed by the center leg of the "E" and the wings and main stem accommodating classrooms.

The one-story type of building, developed to meet the needs of the educational administrators of that time, was the subject of a great deal of discussion and resulted in the construction of four buildings along the same lines. This type consisted of classrooms on one floor, leading off from wide interior covered play courts which also served as corridors for the classrooms. The central portion between the two play courts constituted the auditorium (Fig. 4).

The Ohio state law allows the use of non-fireproof roofs over buildings one story in height, subject to an additional exit being provided to the exterior from each classroom, and these one-story buildings were so constructed. There seems to be a lack of complete agreement among school authorities as to the degree of merit of one-story buildings as compared with other types, apart from the debatable question of costs and the practical adaptation to certain theories of use.

A building that has worked out somewhat satisfactorily from an educational point of view as expressed by the educational administrators is the H. W. Longfellow school (Fig. 5) planned along the lines of a combination "H" and "E" shaped building. The analysis of this combination, as shown by the tabulations to be discussed later, proved just the opposite result from the point of view of economy of plan and cost. This building is two stories high and consists of a middle portion of classrooms from the center of which projects the auditorium and gymnasium wing. At each end wings extend both to the front and rear of the main center unit. This building is the first attempt in providing a gymnasium over the auditorium, the gymnasium in previous buildings generally having been provided in the form of a play room in the basement.

The heating plant here is located outside of the main walls, the principle of which has been adopted in many previous buildings due to the fact that a then strict interpretation of the state laws prohibited the use of boilers within the main walls of a building when such boilers carry a pressure exceeding 35 pounds. It has been deemed advisable for many reasons to ex-

ceed this pressure in the boiler plants of the Cleveland school system.

The latest elementary buildings consist of the two-story "U" shape type represented by the Benj. Franklin, Moses Cleveland, and Paul Revere schools. (See Fig. 6.) These buildings have both an auditorium and a gymnasium along the front of the building contained within the "U" plan of the layout, as differentiated from the type that have these units projecting from the main stem of the building. No basement is provided, and the boiler plant is detached from the main building and located at the rear between the two wings.

Several of the foregoing buildings were chosen for comparison with standards recommended by the Committee on Schoolhouse Planning of the N. E. A., and these analyses have been carefully studied.

Description of the Types of Buildings Studied

While a great deal of information has been collected for comparative purposes on every different type of building erected in the Cleveland school system, it has been thought advisable only to present data bearing upon a few of the representative types which differ materially from one another and of a sufficient number to make sure that a proper perspective of the entire school system will result. Buildings actually erected in Cleveland are only considered at this point, together with two additional types which have not been erected but have been prepared in the form of sketch plans for showing the possibilities of new ideas and suggestions.

The different types of buildings selected and their descriptions are as follows:

Gordon School—Fig. 1. Rectangular type, two stories and basement, 16 standard classrooms, no auditorium.

Anthony Wayne—Fig. 2. Rectangular type, three stories and basement, 21 standard classrooms, gymnasium and auditorium.

Gladstone—Fig. 3. Rectangular type, three stories and basement, 26 standard classrooms, two playrooms.

Brett Memorial—Fig. 4. One story type, no basement, 34 standard classrooms, interior play courts and auditorium.

H. W. Longfellow—Fig. 5. Combination H. & E. type, two stories, no basement, 22 standard classrooms, auditorium and gymnasium.

Paul Revere—Fig. 6. "U" type, two stories, no basement, 32 standard classrooms, auditorium and gymnasium.

Suggested Type "E"—Fig. 7. Two stories, no basement, 30 standard classrooms, auditorium and gymnasium.

Suggested Type "H"—Fig. 8. Three stories for center portion, two stories for wings, no basement, 32 standard classrooms, auditorium and two gymnasiums.

The above descriptions without question cover a sufficient variety of types to form the basis of study for the comparisons found in this article, as they cover almost every type that it is pos-

sible to devise and still meet in any degree the requirements for an elementary building. It is upon the best points in these buildings that many conclusions have been arrived at in the development of the "T" shaped building adopted.

The following tabulation indicates the number of cubic feet of building per classroom in each building placed in order of amount, this being an indication of economy of the respective buildings:

Gordon	55,850 cubic feet
H. W. Longfellow.....	47,270 cubic feet
Paul Revere.....	40,000 cubic feet
Gladstone	37,300 cubic feet
Anthony Wayne.....	33,330 cubic feet
Brett	32,600 cubic feet
Suggested type "H".....	31,870 cubic feet
Suggested type "E".....	31,860 cubic feet
Adopted Standard Building	
"T" type.....	30,300 cubic feet

Type of Building Adopted

Plan Arrangement: The plan arrangement of the building is based upon the principles of economy, so far as this is possible and at the same time provides additional units other than standard classrooms, the concentration of the various components, grouping of the building masses for minimum wall and roof surfaces, adaptability for mechanical requirements, and convenience of operating.

The educational requests were based upon a special form of educational administration which has found expression in the suggestions made by the educational administrators for certain physical features to be provided by their requirement schedule.

Of all the plans considered, the conclusion has been arrived at that a new type of plan in the form of a "T" should be adopted, which is more or less a modification of the Longfellow type of plan with the "H" shape feature omitted and other similar uneconomical points eliminated.

The various floor plans of the "T" type building are shown in Figures 9 to 12, inclusive, which show the boiler room, first, second, and third floor plans respectively. It will be noted that the front of the building contains the classroom units, and this portion of the building is of the rectangular ordinary-width corridor type. The principle of this building type has been used in many of the buildings previously described and cannot be bettered from an economy point of view. The auditorium and gymnasium features are located in the stem of the "T", projecting at right angles from the main block. This arrangement allows both desirable and necessary light and air from both sides, and stairs located on either side afford the convenience necessary.

The portion of the building given over to janitorial and custodial service and mechanical apparatus is located under the auditorium, and provides desirable centralization for these features.

Number of Stories: The building is three stories high, without basement except for the area needed for mechanical apparatus. Three stories in height for elementary school buildings is the limit allowed by the Ohio building laws. This, therefore, means that consideration has only to be given to one and two-story buildings for comparison as to economy and suitability, with a three-story building.

The requested educational features cannot be economically provided in a one-story building in such manner as to make the plan desirable for satisfactory administration and this, therefore, eliminates the one-story type of building.

The two-story type has been considered a possibility in design to meet the present educational needs and this has been given careful consideration.

(Continued on Page 140)

Liability of School Districts in Nebraska for Personal Injury

Harold A. Prince, Counsellor, Board of Education, Grand Island, Nebr.

This particular question seems never to have been decided by the supreme court of the state of Nebraska, and while there is a wealth of authority among the decisions of other states of the Union, there is little that can throw light upon this question among the decisions of our own state. The most pertinent reference is a dictum in the case of *Ray vs. School District of Lincoln*, 105 Neb. 456, 181 N. W. 140. This was an action brought under the Employers' Liability Act of the state of Nebraska, as amended by the laws of 1917, by the janitor of a schoolhouse against his employer, the school district of Lincoln. In this case the court said:

"It must be remembered that the state and its governmental agencies could not be held liable under the common law for personal injuries sustained by its servants in line of employment, although due to its own negligence, nor could such a recovery be had under the law as it existed in this state at the time of the enactment of the Workmen's Compensation Act."

A School District is a Governmental Agency

The courts have declared that a school district is a quasi-municipal corporation; that it is a governmental agency and in constructing and maintaining schools, it is acting in a governmental capacity, in which capacity it is subject to entirely different laws than is a municipal corporation when it is engaged in some private enterprise. This is the holding of the supreme court of Nebraska in the case of *Ray vs. School District*, supra. See also, 35 Cyc. 971 (and cases infra).

Governmental Function Versus Private Function

"The state cannot, without its consent, expressed through legislation, be sued for injuries resulting from an act done in the exercise of its lawful governmental powers and pertaining to the administration of government. When this power is exercised, as it must be, through an agent, the agent cannot be sued for the injuries resulting from a strict performance of the agency. In such case the act is regarded as the act of the state, and not of the agent, who is the mere instrument of the state, and nothing more; and, if the agent employs servants in the performance of the act, he cannot be sued for injuries resulting from the negligence of the servants. The rule of respondeat superior does not apply. The state, and not the agent, is the real superior."

(*Burke vs. City of South Omaha*, 79 Neb. 793, 113 N. W. 241.)

This statement of the law finds ample support in the decisions of the supreme court of Nebraska in the following cases:

Gillespie vs. Lincoln, 35 Neb. 34, 52 N. W. 811, 16 L. R. A. 349;
Village of Verden vs. Bowman, 97 N. W. 229;
Murray vs. City of Omaha, 60 Neb. 279, 92 N. W. 299;
Phenix Mutual Life Ins. Co. vs. Lincoln, 91 Neb. 150, 135 N. W. 445;
Henry vs. City of Lincoln, 93, Neb. 331, 140 N. W. 664;
Rooney vs. City of Omaha, 105 Neb. 447, 181 N. W. 143.

School District Not Liable

The almost universal rule is that a school district is not liable for acts of negligence, either of itself, or of its agents, servants, or employees in the absence of express statutory liability. In the State of Nebraska there is no such statutory liability. It has been contended that Section 22 of Article V of the constitution of Nebraska and sections 1100 and 1105 of the compiled statutes of Nebraska for 1922 create such statutory liability.

This contention, however is foreclosed by the case of *State vs. Stout*, 7 Neb. 89, which in effect limits the liability of the state to such claims only as are "provided by law."

The cases from other jurisdictions are very numerous and will be found cited in the following compendiums:

35 Cyc. 971;
 2 N. C. C. A. 215;
 22 N. C. C. A. 863;
 37 L. R. A. 302;
 49 L. R. A. (N. S.) 1062;
 9 A. L. R. 911.
 24 A. L. R. 1070.

White on Negligence of Municipal Corporations, Sec. 99.

The only states that do not appear to follow this general rule are the States of Washington, Indiana, and New York. In Washington and Indiana the liability is imposed by statute.

Sloval vs. Toppenish School District, Wash., 188 Pan. 12, 9 A. L. R. 908;
Adams vs. Schneider, Ind., 124 N. E. 718.

The court of appeals of New York basing its decisions largely upon a statute, has held in numerous cases that, while a school district cannot be held liable under the doctrine of respondeat superior for the torts of employees of the board of education, the school district is liable for the torts of the board of education, itself; that is, that the school district could not be held liable where a teacher permitted a buzz saw to be operated without a guard, but that if the board of education, itself, permitted a buzz saw to be operated without a guard, the school district might be liable.

Herman vs. Board of Education, 234 N. Y. 196, 137 N. E. 24, 24 A. L. R. 1066.

This was decided in a case holding that the members of the board of education could not be held liable personally for such acts. The holdings of the New York court are not in accord with the general rule laid down by the decisions of other states, and the writer submits that if a school district is a governmental agency and cannot be liable under the doctrine of respondeat superior for the nonfeasance or misfeasance of a teacher or janitor, that then it cannot be liable for the nonfeasance or misfeasance of a board of education, which is simply the agent of the school district, and to apply the New York rule is to apply the doctrine of respondeat superior to some agents and not to others.

Except the foregoing states, no other state which has passed upon this question has held a school district liable whether the injuries complained of were to employees of the school district, pupils or third persons. Among the cases holding that there is no liability, irrespective of whether the act complained of is an act of a minor employee, or any official, or the act of the board of education, itself, are:

Some Practical Uses of the Intelligence Tests

Luke C. Rhoads, Supervisor of Instruction, Mount Vernon, N. Y.

There appears to be an under-current of thought among many of our best teachers that the testing movement is being carried too far and that the results obtained do not justify the large amount of time and money spent. The fact that every village school, as well as the most progressive city systems, are using the tests is no argument for their continued use. This merely points the way educational thought may be drifting. If these teachers are to be won back as enthusiastic supporters of testing, they must be given arguments that are basic.

In this short article, we shall discuss a few basic reasons why intelligence tests should be retained and some practical uses that have been made of such testing recently in the Mount Vernon schools.

It would appear almost axiomatic that intelligence tests reveal bright and slow pupils better

Sullivan vs. School District 179 Wis. 502, 191 N. W. 1020, 22 N. C. C. A. 863;
Anderson vs. Board of Education, N. D., 190 N. W. 807;
Daniels vs. Board of Education, 191 Mich. 339, 158 N. W. 23, L. R. A. 1916 F. 468;
Lane vs. Woodbury, 58 Ia. 462, 12 N. W. 478;
Ernst vs. West Covington, 116 Ky. 850, 76 S. W. 1089, 63 L. R. A. 652;
Kinnare vs. Chicago, 171 Ill. 332, 49 N. E. 536;
 For others, see the cases cited in the foregoing compendiums.

Liability of Members of Board Individually

Are the members of a school board or a board of education individually liable for negligence? This question must be answered in the negative.

Daniels vs. Board of Education, 191 Mich. 339, 158 N. W. 23, L. R. A. 1916 F. 468;

Plumbing Supply Co. vs. Board of Education, 32 S. D. 270, 142 N. W. 1131;

Herman vs. Board of Education, 234 N. Y. 196, 137 N. E. 24, 24 A. L. R. 1066.

In the *Daniels* case, the supreme court of Michigan held that there was no liability. It was a case wherein a pupil sought to hold the members of a school board liable individually for adopting a plan for a schoolhouse with an insufficient balustrade along a school stairway to prevent children from falling over it and maintaining a stairway in that condition. The court, in holding that there was no liability said:

"No statutory duty is imposed upon the members of this board individually. It is not charged that any particular one acted or assumed to act as an officer, agent or representative of the board, or in any different capacity from the other. They had no power and were charged with no duty except to act together in a quasi corporate capacity. The negligence which all defendants are charged with involved malfeasance and nonfeasance in their governmental duties connected with their construction and maintenance of this schoolhouse. We are impressed that if the board as such is not liable its individual members are not liable; no individual liability is created by statute."

The South Dakota Supreme court in an action wherein it was sought to hold members of a school board individually liable for a failure to require a bond, stated the law to be as follows:

"Liability for negligence and suit therefor against the individual officer can only exist by virtue of an express statute creating the individual duty of such officer, and also authorizing the maintenance of a suit for failure to perform such duty."

Conclusion

From the foregoing, it is the opinion of the writer that there is no liability exclusive of the employees' liability act in this state of either the school district or its board of education, either as a corporation or individually, to any employee, servant, pupil or third person for personal injuries caused by negligence, either on the part of some agent, servant or employee of the school district, or of the board of education itself.

than any other method heretofore devised. Psychologists have proved in theory, and school men have demonstrated in practice, that teachers are not able, by the older methods to identify bright and slow pupils. They are influenced too often by pleasing personal characteristics or have based their judgment on too limited a field of mental operations, or many times do not take into consideration the chronological ages of their pupils. The importance of giving special attention to these pupils, even though retained in the regular classes, is obvious.

A fair degree of prediction of the probable educational careers of pupils can be determined by the use of intelligence tests. Extensive studies have been made which tend to prove this thesis. Columbia University, Hawaii University, and several other leading universities have made a study of a large number of stu-

dents who have taken the mental tests. Their work in the universities showed a high degree of correlation between scholastic and intelligence scores. The high school teachers of Mount Vernon, N. Y., plan to make a similar study this year. All of the 225 pupils in the freshman classes have been given the Terman mental ability tests. Three times during the first year, these pupils will be given standard scholastic tests, the object being to study the degree of correlation between their intelligence and their achievement marks. If this proposition is proved and generally accepted, many wasted years of a child's school life will be avoided.

Another important phase of the intelligence testing movement is the measurement of accomplishment. It is only within recent years that this phase has been put to practical use. The amount that the pupil actually achieves, compared with what he is able to achieve, can be found only by the use of the intelligence tests. This reason alone should justify their wide use. No longer need the teachers of slow pupils fear to compare their results with teachers of bright pupils. So well have they done in many cases that teachers of bright pupils are maintaining that their tasks in this particular is more difficult. This can be determined scientifically and, no doubt, will be within the next few years.

Last June, in the Mount Vernon schools, an interesting, as well as illuminating series of tests were given which throws light on this question. The Terman mental ability tests were given, followed by the Stanford achievement tests, after which a comparison was made between the pupils' subject ages and mental ages in the common branches. A table was then compiled, showing the per cent of pupils in each class of the various buildings whose subject ages excelled the mental ages. In other words, the accomplishment ratio or the per cent of pupils who were working up to maximum capacity was obtained. Dr. Terman maintains that when a large percentage of pupils are working up to capacity, it reveals that the methods used by the teaching staff are satisfactory in getting results. May it be said, to the credit of the Mount Vernon teachers, that without a single exception all classes in the basic subjects were working far above capacity.

Following is the table tabulated in detail, showing the per cent of pupils in the 8-2 classes of the Mount Vernon schools whose subject ages, as rated by the Stanford Achievement Tests, excel the mental ages of the Terman Mental Ability Tests. In other words, this table compares each class's ability to learn and the amount that the class actually did learn.

Conclusions Deducted from the Study

1. One would expect that School B, whose median I.Q. (111) which is high, would rank high in the percentage of pupils who were working to capacity. The opposite is true. The deduction would therefore follow, other things being equal, that it is more difficult to secure the maximum capacity to work from bright pupils than from slow pupils. A study was made of all the schools, which revealed that a larger percentage of pupils, who had low I.Q.'s, were working to maximum capacity than those of high I.Q.'s. This might be due to the fact that teachers of bright students do not always fully realize what a heavy responsibility is theirs.

2. A close classification of pupils, according to intelligence, is not necessary in order to get pupils to work to capacity. The important thing is to reduce the range of educational ages in the given class. This deduction was obtained by comparing the results of School B and G. Although median I.Q.'s were practically the same, and the range of I.Q.'s (86-140) were also the same, School G made a consistently high score throughout. However, this deduction

No. of Pupils	Name of School	Median I.Q. Terman	Reading	Arithmetic	Nature Study or Science	History and Literature	Language	Spelling	Final Average
50	A	97	60	90	42	96	66	88	73
41	B	111	61	66	31	72	80	85	66
27	C	83	75	92	40	77	55	66	67
32	D	98	71	88	22	84	65	97	71
42	E	93	66	88	44	98	88	93	79
98	F	99	79	90	39	93	79	86	77
56	G	110	86	88	59	88	79	73	78

might be false as to classifications, according to I.Q. below 90. It would appear, without argument, that pupils whose I.Q. vary from 90 to 150 can be made to work to capacity as a class with less difficulty than pupils whose I.Q. vary from 60 to 90, unless the work is entirely individualized.

3. Pupils who are taught largely by individualized instruction, work to capacity in larger numbers than those who do not. This deduction is made from a study of the report of School C. The median I.Q. of this group is only 83, yet the school ranked well in its ability to work to capacity. These pupils are taught almost entirely by the individualized methods. This is a concrete proof of its success. The method should be continued and extended in its use of pupils of this class.

4. The scores of the Stanford Achievement Tests reveal the quality of the work done throughout the whole eight years and not necessarily the eighth grade. This is at least true of reading, arithmetic, and language usage.

5. It is said that soul qualities cannot be measured. This is no doubt true in the strict sense. Nevertheless, teachers who are kind, considerate, and sympathetic with pupils are getting marked cooperation and thereby getting maximum amount of effort from their pupils, as well as developing in them tolerance, patience, and cheerfulness.

Of course, this study has resulted in a closer examination of the methods used by each teacher, with the purpose of disseminating the best among all teachers.

Twinkles

Mary Coles Carrington

Ours is a night school and mine a daylight job, so I see little of the pupils. Most of them are employed during the day, but sometimes they come in to register in office hours and then—Oh, joy! We need fun, and the gleams they and other visitors unconsciously furnish are very welcome.

Our office force is short-handed; Mr. Barnes, the superintendent; Miss Snell, the secretary, and myself—dubbed by a graceless brother, "the office dog". "Busy as a bird dog" has passed into a proverb, but the activities of the office variety are unchronicled.

Miss Snell is long and narrow, iron-gray and efficient; she is kind and well-meaning but stiff as buckram and destitute of humor. Mr. Barnes is iron-gray too, but short and wide; bubbling with fun, tirelessly patient with the shy, inarticulate boy who wants to "get on", stern with the young scamp who skips classes and won't work; an adept in discovering what a boy needs to study and steering him thereto.

I liked a boy who came in to register and in the superintendent's absence, addressed himself to us. "You know," he began briskly, "I been coming here a long time, an' never got here yet. So I says to myself last night, 'Look a-here, son! What you thinking 'bout? Talking ain't doing, an' piddling 'round don't put any meat in your mouth! Pitch right in an' go ahead!' So here I am."

Another, after registering, proudly produced an advertisement of the bakers by whom he was employed, containing a glowing panegyric on their cakes and pies and with the surprising slogan, "Made by people who know better". He thought it perfect, but to me it had a suspicious significance.

The parents are sometimes funny, sometimes pathetic, in their anxiety for their boys to get an education. One earnest mother came from a near-by farm, and both she and the boy were deeply bronzed from work in the crops, their hands hardened by toil. But she had a broad, white forehead, bright eyes of clear sky-blue, and a merry laugh. Though bashful and awkward, the boy had a fine, honest face, and later did well in his classes.

Smoothing back her crisply curling hair, she said, feelingly, "The trouble with Bill, here, is this, *he ain't confidential enough with himself*". Now, here is offered, unwittingly, a worthy morsel for discussion. Who is "confidential enough with himself"?

Another mother is as distinct a memory, for other reasons. One young reprobate registered, duly paid his tuition, attended classes for a week—and vanished. After a while a severe-looking female appeared, saying she wished to know how her son was getting on. Mr. Barnes greeted her courteously. Did she not have regular reports on her son's standing? A spark lit in her chilly gray eye; the boy said this school sent no reports. Deputed to look up the records, I reluctantly admitted the rascally facts. She gasped; "And he's been out, somewhere, every night? Well!" The spark kindled to a blaze; "How about my money? The boy got no schooling, I get my money back."

Mr. Barnes urbanely explained that no fees were returned; the tuition was low, in fact nominal, it was positively against rules—

"Rot!" she exploded; "I certainly mean to have it! Who is your money man?"

Arguments proving of no avail, she was given, unwillingly, the name of the treasurer and departed "hot foot". The money-man later admitted, under pressure, that he had been browbeaten, bull-dozed, etc., until he had surrendered the disputed dollars in despair.

Two heavily rouged and powdered damsels breezed in one day to apply for typing and while they waited Mr. Barnes' return, I listened, shamelessly, to their talk.

"You're the cat's meow today," said one, looking enviously at the other's finery, "What's up?"

"Got a date with my sweetie—my husband, y' know!"

"Humph!" sniffed number one (single, I'm willing to bet!) "How long you been married?"

"Two years," was conceded; "but I'm still in love with him!" she added hastily.

I glanced at Miss Snell at this naive conclusion; her stony expression spelled disaster for any hopes of employment either might cherish.

Miss Snell regards me, indulgently, as a lack-wit for the delight I take in the bits of fun that break the office routine. She can't see why I snicker at trifles. An extra i, added by a pupil to ominous, meant simply a misspelled word, but to me—and to an appreciative family, it became a joyous by-word. *Ominious!* How fascinating! And how full of mysterious significance!

I was a delighted, though subdued, auditor when she interviewed various applicants for the position of assistant to our faithful janitor, Lazarus, incumbent of many years. One well-meaning aspirant reported that a former em-

(Concluded on Page 142)



The Department of Superintendence Meeting at Washington, February 21—25, 1926

The Department of Superintendence will hold its annual meeting February 21st to 25th, at Washington, D. C. This meeting, which is the 56th convention of the department, promises to break all records in attendance.

No one hotel has been selected as headquarters for the convention, and for this reason, all activities will center in the new Washington auditorium at Nineteenth and E Streets and New York Avenue Northwest.

Special railroad rates have been granted for the meeting, with round-trip tickets on the identification certificate plan, at one and one-half fare for members of the Association. Round trip tickets will be sold from trunk line association territory, February 17, 18, 19, 20, 21, 22, 23, and identification certificates will be ready for distribution on January 10th.

The Auditorium will house the exhibits at the meeting, which are expected to number about 125. In addition to the main exhibits on the lower floor a special exhibit, of twenty separate units, promoting civic, social, and research organizations, will be found on the floor above the auditorium lobby. Other special exhibits will be located on this floor.

The general meetings will include three sessions on the reorganization of the administrative units, with three devoted to the discussion of elementary education, junior high schools, and senior high schools. The executive session of the department will be on Tuesday morning and will include the usual seven-minute reports of actual achievements in the field by different superintendents. The general meetings will be addressed by speakers of national prominence on topics of immediate interest to superintendents of schools. Some half dozen topic groups have been planned for more intimate discussion. Among the allied organizations which will hold meetings at the same time are the National Society for the Study of Education, the National Council of Education, the Department of Rural Education, the Department of Elementary Principals, the National Council of Primary Education, the National Council of State Superintendents and Commissioners of Education, and the National Association of Secondary School Principals.

The Program

Monday, February 22nd

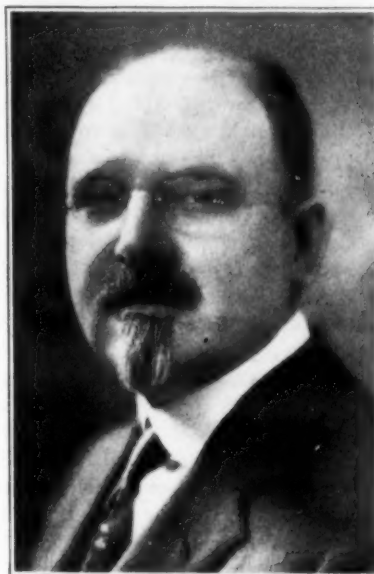
General Topic: An Elementary School Consisting of Kindergarten and Grades One to Six.

What is the Purpose of Elementary Education. John J. Tigert, Commissioner of Education, Washington, D. C.

The Characteristics of an Efficient Elementary School Principal. Mary McSkimmon, Principal Pierce School, Brookline, Mass.

The Problems of Rural Life and Education. Hon. Frank O. Lowden, former Governor of Illinois.

Other topics to be taken up are The Relation of the Public Schools to Religious Instruction, Methods and Technique of Classroom Supervision, Dental Hygiene in the Public Schools, and the Work of the Junior Red Cross in the Public Schools.



DR. FRANK W. BALLOU,
Superintendent of Schools,
Washington, D. C.

Tuesday, February 23rd

Executive Session.

Seven-minute addresses and a general business session.

The afternoon will be given to meetings of departments and allied organizations.

Wednesday, February 24th

General Topic: A Junior High School Consisting of Grades Seven, Eight, and Nine.

Educational Objectives of the Junior High School. Supt. Herbert S. Weet, Rochester, N. Y.
Provision for Individual Differences Among Pupils in the Junior High School. Calvin O. Davis, University of Michigan, Ann Arbor, Mich.

Articulation of the Junior High School with the Elementary School and Senior High School. (Speaker to be announced.)

Supervision of Classroom Teaching in the Junior High School. (Speaker to be announced.)

Thursday, February 25th

Teaching as a Profession. Henry Suzzallo, University of Washington, Seattle, Wash.

The Scientific Movement in Education. James E. Russell, Teachers College, Columbia University.

The Platoon School Type of Organization: Its Advantages. Charles L. Spain, Deputy Superintendent of Schools, Detroit, Mich.

The Platoon School: Its Disadvantages. Henry B. Wilson, Superintendent of Schools, Berkeley, Calif.

General Topic: The Senior High School, Consisting of Grades Ten, Eleven and Twelve.

Higher Educational and Professional Standards for Senior High School Teachers. J. M.

Gwinn, Superintendent of Schools, San Francisco, Calif.

The Principal as a Supervisor of Classroom Teaching. Charles H. Judd, School of Education, University of Chicago.

Extra Activities for Superintendents at Washington Meeting

Superintendents in attendance at the meeting of the Department of Superintendence in Washington, February 21st to 25th, will have the opportunity while in the city to make contacts with, or to secure information, from a number of offices with functions closely allied to those of the school system. These include federal, national, and local bureaus, organizations or schools.

Through the cooperation of a number of government offices, including the Bureau of Education, the Federal Board of Vocational Education, the Department of Agriculture, the Bureau of Labor, the Children's Bureau, the Public Health Service, the Veterans' Bureau, and the American Red Cross, invitations have been extended to visitors to inspect the various bureaus for information and suggestions. The library of the Bureau of Education is of special interest, since it contains photographs of school buildings, floor plans and numerous other articles of interest to school officials.

An additional attraction for the visitors are the fine, modern schools which are to be found in the capital city of the country. A number of these buildings are recent examples and all are provided with furniture and equipment of the latest design.

A number of national organizations have their headquarters in Washington, including the National Education Association, the American Council on Education, the National Congress of Mothers and Parent-Teachers' Association, the National Child Health Council, and the Education Service of the U. S. Chamber of Commerce.

ANNOUNCE CONVENTION DATES

—The convention of the Pennsylvania School Board Secretaries and Directors will be held February 9th, 10th, and 11th, at Harrisburg, Pa.

—The next meeting of the Oregon School Board Association will be held at Astoria, Ore., some time in the early spring.

—Mr. Egerton L. Winthrop, a former president of the board of education of New York City, died on January 17th, after a brief illness. Mr. Winthrop was appointed to the board of education in 1904, and in 1906 he became its president, a position which he filled until 1913. At the time of his death, he was the senior member of the law firm of Winthrop & Stimson.

—Mr. E. T. Stretcher has been elected school clerk at Portland, Ore., for the remainder of the present school year. He succeeds Mr. Robert Fulton, resigned.





THE AMERICAN School Board Journal

WM. GEO. BRUCE }
WM. C. BRUCE } Editors

EDITORIAL

THE SCHOOL BOARD COMMITTEE SYSTEM

The practice to divide the membership of a board of education into committees, for the purpose of securing more intensive consideration of current proposals and projects, is an old one. It serves its purpose in that it aims to assign certain tasks to those best fitted to perform them and to facilitate the work of the parent body.

There are those in every board that are familiar with matters of finance, building problems, and with certain phases of the ins and outs governing administrative labors. There are also those who pulse the educational needs of the community and reflect them in committee deliberation. The president who distributes the committee assignments with a due regard for the experience and capabilities of the several members has performed the first and most important duty of his office.

The experiences which have grown out of the committee system lead, however, to certain conclusions which do not warrant its unqualified acceptance. It has its drawbacks, more specially in smaller communities where the administrative labors are not crowded, and where a more simple and direct procedure is possible.

The evils which have developed are frequently found in a dissatisfaction over the distribution of committee assignments. The presiding officer may have missed his guess as to the preferences of his members. He may, too, have dealt consciously or unconsciously in awards and punishments.

There is also a committee psychology. The positive mind dominates the indifferent mind. The keen, incisive and plausible will conquer the negative. On the whole, the correct conclusion is supposed to have been reached. The open board is the body that accepts or rejects. The prevalence of a traditional senatorial courtesy favors rather than frowns upon a committee report. The inexpedient may slip through.

There has been a tendency in recent years in some sections of the country to frown upon the committee system. In some of the smaller and even in medium sized cities it has been abolished altogether. Here the board constitutes itself as a committee of the whole in order to determine upon all specific and general problems.

The expediency of this method is obvious. It familiarizes all members with all questions and permits the exercise of an independent judgment of an entire body without the intervention of a committee recommendation. It brings the first hand information to every member and permits immediate deliberation and judgment upon the same.

Such action is necessarily predicated upon the volume of business to be transacted. Where the school system is large and the projects and problems presented are numerous and some-

times considerably involved, the committee system must be retained. But, where the system is not large and the business mainly of a routine character, it has been deemed practical to discard the same. And even the exceptional and unusual transaction, which necessarily arises in every school administrative body, must have the full understanding of the individual member in order to enable intelligent deliberation and wise conclusion.

THE TRANSITION FROM OLD TO NEW CONCEPTIONS

The old time board of education was a cumbersome affair. Its membership was large, its tenure brief and its representation based upon local units. The modern board of education is a smaller body, enjoys a more extended tenure and is based upon representation at large. It fixes responsibility more definitely, permits a term of service in which experience may assert itself, and obviates the evils of local clamor and sectional preference.

More important, however, than the change in the plan of creating school administrative bodies is the new conception as to scope, function and operation. The modern school board is a legislative, judicial and administrative body which delegates all initiative and executive labors along educational lines to the superintendent and reserves to itself the right of final approval. That official becomes the manager of the schools who is held accountable to the administrative body.

When a community which has clung for many years to an old system adopts the new it seems to some people as if an experimental departure had been engaged in. In fact, the so-called modern conception of school administration is no longer untried or new, or rather is only untried and new where the old system has been obtained. Thus, a New England newspaper speaks of the school board change at Providence, R. I., as an experiment in education, and says:

"An interesting experiment in education, which will be closely watched all over the country, is that now being made in the city of Providence where a seven-member school committee has just replaced the old thirty-member committee, in whose hands the conduct of the public schools of that city has been for 36 years prior to the present rearrangement. The new committee, on assuming control of the public school system, has placed full charge of this system in the hands of the superintendent of schools. Having full charge of this educational system, however, the entire responsibility for the proper conduct of the public schools of that city rests upon the shoulders of the superintendent. It is said that the authority given to this official under such an arrangement has seldom been equaled in this part of the country.

"Thus we speak of the situation as an experiment in education, for it is such. It is declared that the new committee has committed itself to a hands-off policy, the superintendent being held responsible to the committee, but having authority to conduct this big educational system as he sees fit and deems best for the city and all concerned. If such a policy is strictly adhered to, it means that the head of the public school system will not be hampered by individual members, with their demands for this and that, which he may not feel are best or feasible, but, under other conditions, would feel that he had no authority to go against the wishes of the individual members."

The tendency to misconception, and even alarm, as to the power of the superintendent is bound to assert itself in the transition period of the old to the new. A member of the new Providence school board deemed it expedient to say:

"I believe that we should arrest at the outset a misconception which seems to prevail that the superintendent of schools in Providence has any more rights under this new committee than he ever had under any previous committee. His responsibilities have increased, and likewise his duties, but he is accountable to the will of the

majority of the school committee in whatever action he may suggest. He can make no transfers, appointments or recommendations without first submitting his suggestions and recommendations in writing to the committee, and it then requires at least a majority vote of the members of the school committee to make his motions or suggestions effective. It is not fair to the superintendent of schools, nor to the committee, to have any misconception on this point, and I make these remarks for the benefit of any one who may be misinformed in the matter, as they evidently are."

The acceptance of the new plan usually comes with some reluctance, but once in operation it remains because it is sound both in principle and practice. The same New England newspaper, above quoted, concludes that:

"It would appear that the new school committee in Providence has taken a wise step in putting full control of the public school system in the hands of one man, the superintendent of schools, well trained by long experience with educational matters and methods. It is somewhat of a novelty and therefore an experiment. Those who are acquainted with the public school system of Providence as it has been conducted by the present superintendent are confident that the new plan, which includes a hands-off policy on the part of the committee, will prove of considerable benefit to the thousands of young men and women who daily attend the public schools of that city."

It remains to be added that the school administrative plan entered upon by Providence is neither a novelty nor an experiment. It has been in vogue for many years in many communities, and will demonstrate its efficiency in Providence as it has elsewhere in the United States.

THE SCHOOLMASTER AND THE COMMUNITY

In the study of civics there is probably no chapter more attractive, or deserves our attention to a greater degree, than that which deals with the elements of community development. The progress and stability of the smaller unit in its entirety and as an integral part means the progress and stability of the state and the nation. That patriotism which expresses love for country and the flag finds its best expression in town pride and community interest actively and unselfishly demonstrated.

The schoolmaster is not only a citizen, but a trainer of citizens. As such he occupies first place in any community and necessarily must be concerned in all that makes for the material and moral advancement of that community. He should know something of the sources that provide economic well-being, that tend to civic stability, and that lead to social progress.

The worker within the schoolhouse walls is frequently so deeply engrossed in professional burdens as to remain unconscious of the community life that surges and struggles about him. And yet, he is constantly engaged in preparing and equipping those who must enter that life.

There is, therefore, every reason to hold that the instructor of the youth should familiarize himself with the industrial commercial and professional activities of the community, the exigencies that attend them, and the opportunities they afford for a life's career. Through an understanding of the educational needs involved in these activities he will become a better instructor and strengthen the school towards rendering a better service to the community.

The writer has had occasion to attend many chamber of commerce gatherings in the mid-west country, where he frequently found that the local superintendents and high school principals were active members. In every instance he found too that the voice of the schoolmaster commanded respectful attention and prompted a cooperative attitude on the part of the business interests towards the schools.

Thus, while the schoolmaster may, through an active participation in the things that make for community progress, equip himself to a higher degree for his specific professional task, he may also render himself a broader and a more useful citizen. He will forfeit nothing in prestige by discarding temporarily the schoolmaster reserve, become a real fellow among his associates, and enter fully into the spirit that seeks to promote the economic, civic and social advancement of the community. In fact, he will gain a new angle upon himself and upon his own scope and function in the local complex, and stimulate his sense of proportion to a considerable degree.

THE SUPERINTENDENT AS A PURCHASING AGENT

The progress made in the field of school administration during the past three decades is best noted in the new definition that has come to the several factors identified with the work. Misty conceptions as to rights and prerogatives have given way to reason and understanding. The scope and function of boards of education, of superintendents and supervisors, of secretaries and business managers, have been lifted from haziness into clarity, and the inter-relations and divisions of authority have been defined in the interest of order and efficiency.

The striking achievement in the field of school administration is found in the definition which has been given the scope and function of the school superintendent. He has become the executive and manager of the modern school system. Boards of education have recognized that while they in the main exert legislative powers, and may be called upon to exercise judicial and administrative authority, that the executive control must be lodged in the hands of one man—and that man is the superintendent of schools.

Thus, it has become accepted that the superintendent has the power to initiate, devise and recommend on all matters relating to courses of studies, adoption of textbooks and the employment of teachers. The board of education has the right to accept or reject, but once it has acted affirmatively the superintendent becomes the strong right arm that carries the policies, orders, and departures into execution.

So much for the purely professional side of the school system. There is another side, namely, the business side. In the smaller cities the superintendent is not only the educational leader but the business manager of the school system as well. He must know what the schools need from season to season in the way of supplies and equipment, and upon authority of the board, must enter the market and buy them. In brief, he becomes the purchasing agent for the school system.

In performing the task here assigned to the superintendent, he must through direct knowledge of the needs, and through the recommendations of his teachers and co-workers, prepare his budget of supplies and paraphernalia for the approval of the board. Once it is approved, he must be permitted, under the lowest bidder system or in the open market, as may be provided by the rules, to make his purchases.

In recognizing his authority to go ahead and secure the things provided for in his budget, and which he believes to be of the greatest service to the school system, he ought not be harassed by pulls below and above him. A teacher ought not to encourage the salesman who wants her to recommend for purchase by the superintendent his particular brand of goods. A school board member should discountenance the salesman who seeks to undermine the authority of the superintendent as purchasing agent by going over his head to foist upon him articles which he does not approve, or want.

It is not a question here of placing an arbi-

trary power in the hands of one man, but of respecting that authority that must of necessity be borne by someone. Those who have things to sell should address themselves to the man who is entrusted with the task of selection and purchase, and not be allowed to pester teachers and school board members.

On the other hand, board members, after having examined and approved the superintendent's budget of supplies and equipment, should not tolerate the intervention of the over-zealous salesman who comes along with a substitute or "just as good" article in order to effect a sale.

Where the superintendent has been designated as the purchasing agent, or where a secretary or a business manager is entrusted with the purchase of supplies and equipment, the assumption must be that the person chosen for this task is informed as to the needs of the schools, and as to the kind and quality of the things wanted. It is further assumed that such a person is honest and may be trusted in every instance to protect the interests of the school system.

MARRIED TEACHER PROBLEM AND THE FUNCTION OF SCHOOL BOARDS

No phase of school administration deliberation has been subjected to greater discussion than that which relates to the employment of married women teachers. Boards of education have adopted rules, and continue to adopt rules, excluding the married woman from the teaching service, and public opinion on the subject seems to be as divided today as it was a quarter of a century ago.

The reasons which actuate the exclusion of married women teachers are generally known. There are several. The one most frequently urged is based upon the belief that the married woman, who has an able-bodied husband to support her, ought not to displace the self-supporting unmarried woman as teacher in the school. Then, there are those who hold that a woman who marries should dedicate her life to the cause of the home and to the duties of wifehood and motherhood. Other reasons are urged, but these will suffice in showing what in the main actuates school authorities in taking a position against the employment of married women teachers.

The arguments of those who defend the married woman teacher are equally well known. They hold that the first consideration is the educational welfare of the child, that in the selection of teaching talent the economic and social conditions of the applicant are irrelevant, and therefore the question of marriage cannot consistently enter into the employment of teachers.

Leaving for the moment the two contending positions to themselves and turning our attention to the body that has the power to decide in one or the other way, we are confronted with the question of administrative scope and function. In other words, one is inclined to ask whether the modern board of education can consistently recognize considerations, outside of those relating directly to the educational welfare of the child, in making a choice of teaching service.

The defenders of the married woman teacher question not only the expediency side of board-of-education action in excluding them, but question the wisdom on the part of that body of manifesting concern in social affairs. This phase of the question has never been discussed to any extent. It may be contended by someone that the modern board of education ought to be deeply concerned in the stability of the American home, and in rendering tribute to the dignity of wifehood and motherhood, as a prerequisite to an efficient school and the progress of humanity.

If this approach to the subject can be deemed acceptable or consistent, then it follows, too,

that school authorities may promote the social well-being of the community as far as this may lie within their scope of action. At any rate, the subject as seen from this angle deserves discussion. Why not? It may lead to new conclusions, or strengthen the old.

VANDALISM AND SCHOOL PROPERTY

A cartoon which appeared in this publication a short time ago, pictured a pupil who had saluted the American flag in the morning and at night smashed the windows of the school-house. The cartoon commanded interest not only because of the inconsistency between a display of patriotism and subsequent outbreak of vandalism, but because of the general prevalence throughout the country of reckless disregard for school property. It is indeed startling to learn that it costs the Chicago school system \$75,000 a year for broken windows in school-houses. It is equally startling to learn that it costs New York City \$90,000 a year for broken school windows.

This record applies to the largest cities, but school vandalism is by no means confined to these two centers of population. Complaints frequently are recorded in the school board records of smaller cities. The bills for broken windows are bound to come to the school authorities for payment.

The Minneapolis, Minn., board of education, several years ago, concluded to reduce the cost of broken window glass, and to introduce, if possible, methods for bringing this about. It began by exacting an explanation for every glass breakage. The results, as reported by George F. Womrath, business superintendent, are interesting. He says:

"With close to 75,000 pupils using the playgrounds adjoining the 101 schools that now comprise the Minneapolis public school system, it is only natural that a large number of lights of glass are constantly being broken, either maliciously or accidentally, every day of the school year. To this total of glass replacement, must also be added such breakage as is caused by storms and other causes wholly beyond the power of the school board to prevent, such as the breaking of dozens of conservatory and skylights by hail storms and of 190 lights of glass in one night by mischievous boys using the school windows as targets for their airguns. Much new glass is also set in connection with building alterations and remodeling work. Most of the glass installed is set into windows, but a considerable amount of glass setting has to be done in doors, transoms, skylights and green-houses. During the past year, close to 5,000 square feet of glass was set. This does not include the old glass reclaimed from old windows, doors, and partitions taken out of schools in connection with alteration and repair jobs.

In discussing the means adopted to reduce vandalism, Mr. Womrath says: "Formerly no explanation was required for glass breakage. About five years ago a rule was enforced requiring the cause for glass breakage to be reported. As this required that an investigation be made to ascertain the cause for the breakage, it was discovered that many of these causes could be prevented. Result: A decrease of 25 per cent in breakage. The rule was then expanded and the name of the person causing the breakage had to be reported. Result: A further decrease of another 25 per cent in breakage. Again the rule was expanded, and in addition to reporting the cause of the breakage and the name of the person responsible, the price of replacement is collected from the person responsible for the breakage unless the breakage is purely accidental. Result: Another decrease of 25 per cent in breakage. The net result has been that the breaking of glass in school buildings is now only one-quarter of what it was five years ago."

The Locker in the Modern School

D. V. Trapp

Many are the advantages of steel lockers, which lead to their wide adoption in modern school buildings. Lockers have long been recognized equipment of the school building, but only in recent years has there been a full realization of the service which they render to both grade and high schools. The use of lockers was formerly limited largely to dressing and shower rooms adjacent to the gymnasium. But now, while every school must, of course, continue to install lockers in connection with the gymnasiums, it has become recognized practice of secondary school administration to provide a locker for every pupil.

Moreover, formerly, the use of lockers even when supplied for the entire student body was limited to the high school. Now the junior high school and even in some cases the grade school, has come to recognize this service and need of lockers, to the extent that the grade schools in many of the leading cities are being remodeled to supply locker facilities for every pupil.

Advantages of Lockers

Lockers, as now installed in the schools, are space savers. Pupils must be provided with storage space for wraps, books, musical instruments, and apparatus of various kinds. The cloak room was the first step toward the adequate storage of pupils' wraps. However, this never gave the efficient service which the individual locker gives each pupil for the adequate safekeeping of his belongings.

The locker is the safest place for clothes, books, musical instruments, and other things which the pupil may be compelled to bring to school for use only in one period. Where pupils go from lecture halls to laboratories and to classroom, etc., the locker is indispensable in that from passing from one room to another, the pupil can, in a few moments go to his locker and make the necessary change of books, etc. It is this feature that takes the locker out of the class of "luxuries" even in the grade school. Schools conducted according to the departmentalized or platoon systems, virtually require lockers. With corridors lined with lockers in a manner to be described later, and as illustrated in the various plates with this article, just a moment is required for a class to make the necessary change of books while going from room to room.

Corridor Lockers

While there has been a great divergence of opinion, an increasing number of authorities appear to favor properly constructed lockers

placed in corridors in preference to the lockers in separate locker rooms.

The most economical arrangement of lockers today is the recessed corridor method. Frequently this utilizes space that would otherwise be utterly wasted. The walls between the classroom and the corridor must be of great thickness to provide space for concrete or steel beams, air ducts, heating pipes, etc. These vents and pipes take but a few feet of a long corridor wall and the balance of the space between the wall facing the corridor and opposite the classroom is hollow. It has become a custom to fit rows of lockers in this space, doors opening into the corridor and the locker fronts flush with the corridor walls. And at once the corridors, those eight and ten foot and often wider passages that eat up so much space and money, render another and an essential service. The pupils going from class to class can take just one moment to make the necessary exchange of books.

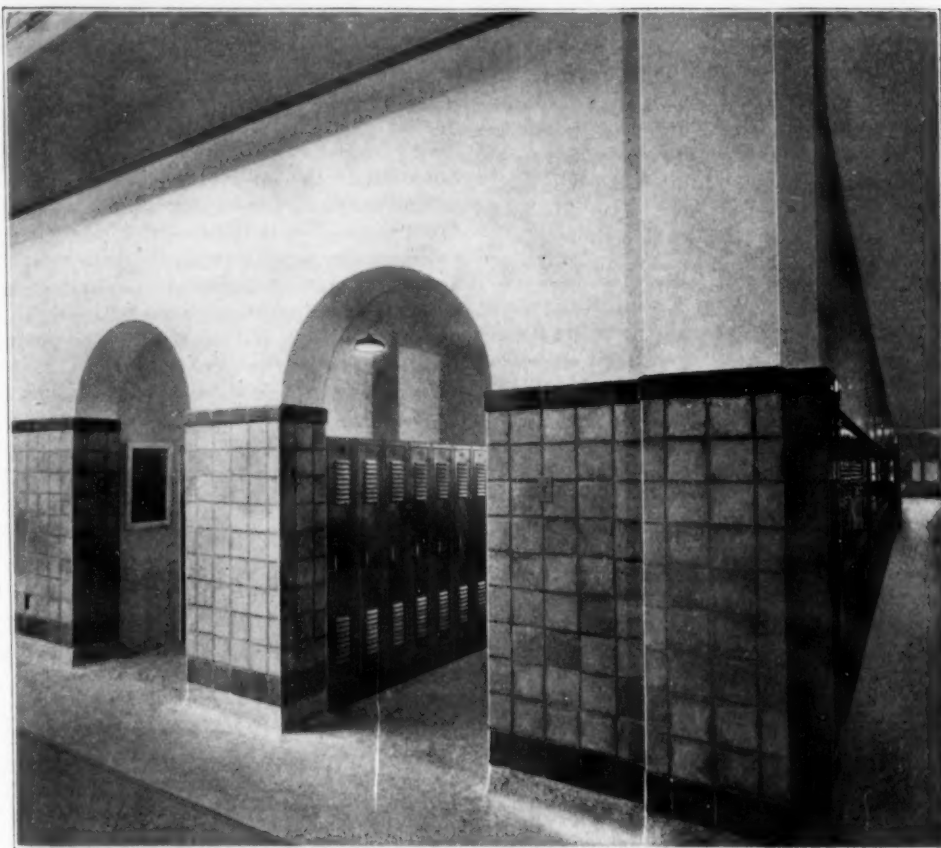


FIG. 1. RECESSED CORRIDOR AND ALCOVE LOCKERS AT THE LINCOLN SCHOOL, TRENTON, N. J.

Some Typical Installations

Fig. 1, showing the recess corridor and alcove lockers in the Lincoln school at Trenton, N. J., illustrates an arrangement of lockers in a corridor and in alcoves. In this building the corridors did not provide sufficient space for the lockers so that several alcoves were planned at the intersections of the corridors. The lockers, which are, single tier, in the corridors, are of the recess types with doors flush with the walls. In the alcoves, the lockers are both in single row and double row, in back-to-back arrangement, equipped with legs and a metal plate to close up the openings between the locker legs. These lockers are finished to harmonize with the beautiful blue faience tile wainscoting, contributing in no small measure to the effectiveness of the color scheme. The doors on the lockers are provided with additional ventilating louvers at both the top and bottom.

Fig. 2 shows steel lockers in the corridors of the Edward E. Libbey High School, Toledo, Ohio. These lockers are finished in gray to match the marble trim, and the spaces at the end and top of lockers are closed with metal strips. Each pupil in this school has a corridor locker as well as a locker in the gymnasium locker room.

Fig. 3 shows a type of locker installation used in Detroit, in Denver, and other western cities. The single tier lockers in the corridor are equipped with two shelves and a vertical partition extending from the lower shelf to the bottom to provide space for the belongings of two pupils. The teacher has a locker in the classroom. This type of locker conserves space and meets the requirements of elementary schools effectively where space is limited.

Fig. 4 is the recessed type of single tier lockers, connected to special ventilating ducts. The doors are louvered at the bottom only, and ducts for ventilating are connected at the top of the lockers.

(Continued on Page 74)



FIG. 2. LOCKERS IN MAIN FLOOR CORRIDOR AT THE EDWARD E. LIBBEY HIGH SCHOOL, TOLEDO, OHIO.

A new name that's 56 years old

"The supply department of Western Electric, taking Graybar Electric as its name, becomes a separate organization on January first." This recent announcement told of one of the biggest changes in the electrical industry.

Fifty-six years of Western Electric experience have set the

stage for the Graybar name. More than 60,000 electrical products* have carried the mark of quality standards that will continue under the Graybar shield.

To the upholding of these standards Graybar Electric brings the wisdom of maturity with the eagerness of youth to serve.

GraybaR

**Everything electrical at your
finger tips!*

That's what the Graybar Year Book, listing over 60,000 products, gives you. Write for your copy to our nearby distributing house.

formerly
Western Electric
SUPPLY DEPARTMENT



Now

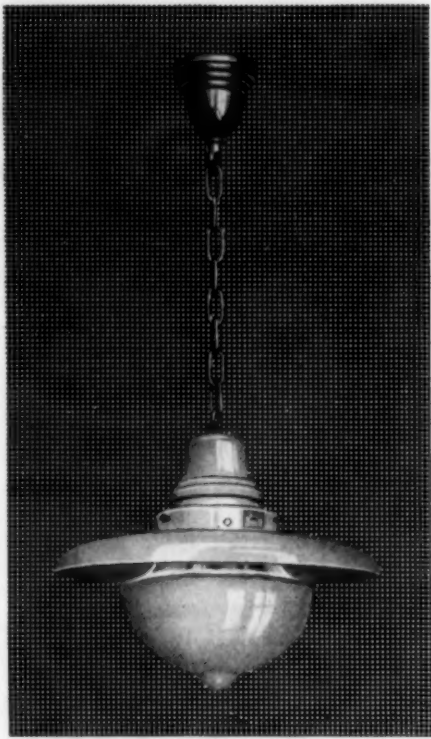
GraybaR

E L E C T R I C

SUCCESSOR TO SUPPLY DEPT.

Western Electric

More Light for Less Money



PENDANT TYPE DENZAR
FOR HIGH CEILINGS

DENZAR

Owing to the perfect distribution of light that is obtained when DENZARS are used for school illumination a saving in current consumption frequently results.

And in addition to this is the **quality** of the illumination—a soft, restful light of ample intensity, but free from glare.

Write for copy of the Denzar Catalog if interested in the subject of better school lighting.



CEILING TYPE DENZAR
FOR LOW CEILINGS

Hundreds of grade schools, high schools, and colleges have installed Denzar to light their class rooms, study rooms, gymnasiums, laboratories, manual training and domestic science rooms, auditoriums, and offices. Contact with so many of these installations has given Beardslee engineers a wide experience in school illumination and has made available a wealth of information on the subject. Any school board, superintendent, architect, or electrical contractor interested in better school lighting may have this information for the asking.

Beardslee Chandelier Mfg. Co, Chicago,,

219 South
Jefferson St.

THE LOCKER IN THE MODERN SCHOOL (Continued from Page 72)

Fig. 5 illustrates a different type of ventilated locker. Here both top and bottom louvers allow a current of air to enter the lockers.

The recessed locker by no means disfigures the school corridor. As a matter of fact, it breaks the monotonous long wall space. The representative locker manufacturers have made a thorough study of enamel finishes, and can now supply schools with lockers that will in every detail harmonize with and even beautify the corridors.

Free Standing Lockers

Some recognized school authorities prefer separate locker rooms, and some prefer free standing lockers in the corridors in place of the recessed type. Locker manufacturers generally are prepared to furnish lockers to meet these individual preferences and requirements. Sometimes old schools which are remodeled cannot be changed so that it is possible to place the lockers in the walls. For such cases lockers are made to stand along the walls. Then, too, even in the larger new schools, this type is sometimes used, as will be noted from Fig. 6, showing a corridor in Junior High School No. 3, Trenton, N. J. These lockers have sloping tops and base closing plates furnished by the locker manufacturer. Many school authorities find this method of installation very desirable and generally applicable to their requirements.

Lockers which are free standing and not recessed, are furnished with sloping tops at a slightly higher cost than the regular type lockers having flat tops. School authorities who use lockers with sloping tops claim that the slant prevents the students and others from using the tops for storage places, and keeps them free from all sorts of miscellaneous articles. Also, these tops assist the janitors to keep

the lockers clean and presentable. However, this is a matter of personal choice and the balance of opinion seems to be in favor of lockers with standard or flat tops.

Lockers of the free standing type, that is, where the upright members extend to the floor or where separate parts elevate the lockers from the floor, can be closed at the base by means of closing strips furnished by the locker contractor. This closing plate is enameled the same color as the lockers and adds to the appearance of the lockers. It prevents the storing of miscellaneous material under the lockers and promotes cleanliness.

Recesses in Corridors

One of the best opportunities for cooperation between school architects, school boards, and locker manufacturers rests in the interchange

of complete detailed dimensions for building the locker recesses. By not giving due consideration to the proper dimensions of the recesses, the architect, the contractor, and others have caused unnecessary expense in many cases.

The fault seldom rests with the locker manufacturers because in many instances, the architect as well as the builders have gone ahead and built their recesses without consulting the manufacturers.

However, the locker manufacturers are responsible in some cases, in that the dimensions and required tolerances of the various makes of lockers are not uniform. In fact, in some makes of lockers, the actual height and the nominal height vary by as much as $1\frac{1}{2}$ inches. For instance, where the nominal height of the locker is given as 60" or 72", in the single tier, the actual height will be as much as 61 $\frac{1}{2}$ " and 73 $\frac{1}{2}$ ", respectively. This, in itself, causes confusion and until the locker manufacturers can get together on a standardization plan, this difficulty will continue to exist for architects and builders, probably to the expense of all concerned. The following scale of dimensions for building locker recesses prevails, however, for the leading makes of lockers:

Nominal Height of Lockers	Actual Height		Req'd Hgt. of Recesses
	without Legs	Minimum	Maximum
60" single tier...	60"	61"	62"
72" single tier...	72"	73"	74"
36" double tier...	72"	73"	74"
42" double tier...	84"	85"	86"

The width of the recess should be two to three inches greater than the total nominal width of the lockers to be installed. The depth of the recess should be at least one inch greater than the depth of the lockers.

Closing Strips and Caps

The top or closing strip on lockers is $4\frac{3}{8}$ " wide over all, extending 3" above the lockers.

(Continued on Page 76)



FIG. 3. TEACHERS' AND PUPILS' RECESSED
LOCKERS—DETROIT TYPE.

Dallas Invites Superintendents' Convention for 1927

DALLAS has long cherished the ambition to entertain the convention of the Department of Superintendence, N. E. A. During the past few years our convention facilities have been augmented to such an extent that they now in every way meet the requirements of this great gathering.

Officials of the Association inspected these facilities last fall. We have a splendid set-up in a modern brick exhibit building with 92,500 square feet of floor space, located only a few steps from our handsome new auditorium, seating 5,000.

Hotel Facilities

Dallas has doubled its hotel facilities within the past three years, and now has some 130 hostelryes, large and small, representing an investment of \$30,000,000. The eight largest downtown hotels alone have more than 3,000 rooms, and the combined hotels have accommodations for nearly 20,000 guests. Perhaps no American city, save resort centers, can show as large a percentage of hotel rooms in proportion to population as can be claimed for Dallas. Pledges totaling 4,000 rooms for the use of the convention have been secured from the hotels, and this obligation sent to the Association.

Speedy Transportation

Nine trunk lines and their subsidiaries serve Dallas, with 100 passenger trains daily in and out of the city. Modern railroads, with their steadily increasing efficiency, are distance annihilators. As examples, Dallas is but 16 hours by rail from Kansas City and 18 hours from St. Louis, and has several good connections with each of these cities; Dallas is 33 hours from Denver, 24 hours from Omaha, 34 hours from Minneapolis, 27 hours from Chicago and Cincinnati, 32 hours from Atlanta and 43 hours from New York and Washington.

Dallas entertained 251 conventions in 1925 with a combined attendance of 94,000. It has been host to some of the greater National gatherings such as the National Shrine, Elks, Ad Clubs of the World, United Confederate Veterans, American Dental Association, and in 1926, the American Medical Association. Attendance at National conventions at Dallas ranks well with gatherings of such bodies when held nearer the center of population of the Nation. Dallas, near the northern boundary of Texas, is but a few hundred miles south of the geographical center of the Nation. Approximately 11,000,000 people live within 24-hour train service of Dallas.

See the Southwest

Colorful Texas and the romantic Southwest offer an appeal for the convention visitor. Remember, too, that the Southwest, of

which Dallas is the financial capital, and the home of the Federal Reserve Bank of the District, is one of the most rapidly developing areas of the Nation and is producing \$2,500 worth of new wealth annually for each family of five, and this with but one-fourth of the tillable land in cultivation. "I sure do like Texas," was the caption of a magazine article by Irvin S. Cobb. Texas, which has been under six flags; which covers nearly nine per cent of the Nation's area; Texas, the big producer of cotton for your clothes, gasoline for your car and beef for your table.

Dallas Supports Schools

School superintendents may be interested to know that Dallas has never voted down a school bond issue. Those of you who live in fast-growing cities may want to see how Dallas has kept its schools abreast of the demands of its growth. Dallas, which now has a population of about 265,000, recorded the high rate in population increase between 1910 and 1920 of 72.6%, according to the Federal Census. As an example of its growth, the high school enrollment has quadrupled in the past ten years. In Dallas' elementary schools you may see a fine example of the platoon system in operation.

Sunshine in February

The climate in Dallas in February should be particularly pleasing to the visitor from colder regions. Since golf is played on Dallas' 16 courses the year around and baseball training starts here in February and the mean temperature for the month is 49 degrees, delegates can feel safe that severe weather will not maintain.

Dallas is a well-rounded modern city, more Western than Southern, but with the best characteristics of both sections. It ranks 15th in jobbing business in the Nation, is important in manufacturing, has 200 churches, 4,000 acres in parks and playgrounds, 38 theaters. It is called the "Skyscraper Center of the Southwest." Dallas is proud of its schools, proud of its facilities for entertaining the visitor, and it is glad to have the opportunity through this medium of saying that there is no body of men and women we had rather have visit

Dallas than the worthy superintendents of the schools of our Nation. We believe you will have an even greater love and appreciation of our Nation when you have seen at first hand that empire, the Southwest. Dallas respectfully asks the opportunity to entertain you in 1927.

—DALLAS BOARD OF EDUCATION

—MAYOR LOUIS BLAYLOCK

—DALLAS CHAMBER OF COMMERCE



Two of Dallas' hotels are shown at right and rear.



In One Hundred Fifty Schools Of This Type

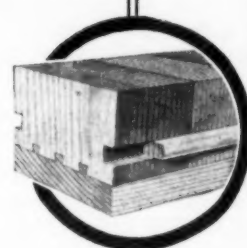
More than a half million square feet of Bloxonend Flooring has been installed in the shops, gymnasiums or corridors of 150 schools throughout the country.

The architects who designed these schools were in most cases "School Specialists" and it is significant that BLOXONEND is a standard flooring specification for a major-

ity of the architects specializing in school construction.

Slivers which are a constant menace to children cannot exist in a Bloxonend Floor. The tough end grain cannot sliver.

Always smooth, but never slippery—clean, bright, durable, quiet and resilient — Bloxonend is the ideal flooring for any part of the school building.



Bloxonend is made of Southern Pine with the tough end grain up. It comes in 8 ft. lengths with the blocks dovetailed endwise on to baseboards.

Write for Descriptive Booklet "A" and samples.

CARTER BLOXONEND FLOORING COMPANY

Kansas City, Missouri

Branch Offices in Principal Cities

BLOXONEND
Lays Smooth FLOORING Stays Smooth

(Continued from Page 74)

The end closing strip is a 1"x3" angle, extending 3" from the side of the lockers. The best arrangement for closing the opening around the end and at the top of lockers is for the locker manufacturer to furnish steel closing strips for the ends and for the general contractors to furnish a wood wainscoting cap for the top. This makes the most generally satisfactory arrangement. In the majority of cases, the wood moulding is superior to the metal end and top strips furnished by locker manufacturers. The relative cost of steel and wood caps for closing the recess at the top is practically the same. Probably the wood strips run a little less per lineal foot, while offering the more secure and satisfactory arrangement.

Providing for locker recesses in corridors is

a matter that should be given the earnest consideration of the architect at the time the drawings are made. It is essential, too, that the school board officials, when recessed lockers are contemplated, check the drawings while the plans are in the formative stage. Just recently a school board member engaged in building a new school, mentioned the fact that while the architect had been requested to plan for recessed lockers, the recesses were, for some unknown reason, omitted from the plans. The school board was then compelled to install free standing lockers in the corridors, and added expense as well as reduced efficiency of the corridors resulted.

Anchoring

Careful consideration should be given by the architect and the contractor for placing

"grounds" for the efficient and solid anchoring of lockers. Recessed lockers must be properly anchored or they will cause no end of trouble. The bases on which the lockers rest should provide bearing for at least the front and back edges of the lockers. When recessed lockers are contemplated, the locker manufacturers are always glad to cooperate with architects and builders by providing the necessary information for the proper building of the recesses.

Ventilation

In connection with the recessed and other types of lockers, it is well to consider the subject of ventilating systems. Constant and uniform ventilation on a large installation of lockers is difficult to secure. However, there are several systems which seem to give a de-

(Concluded on Page 78)

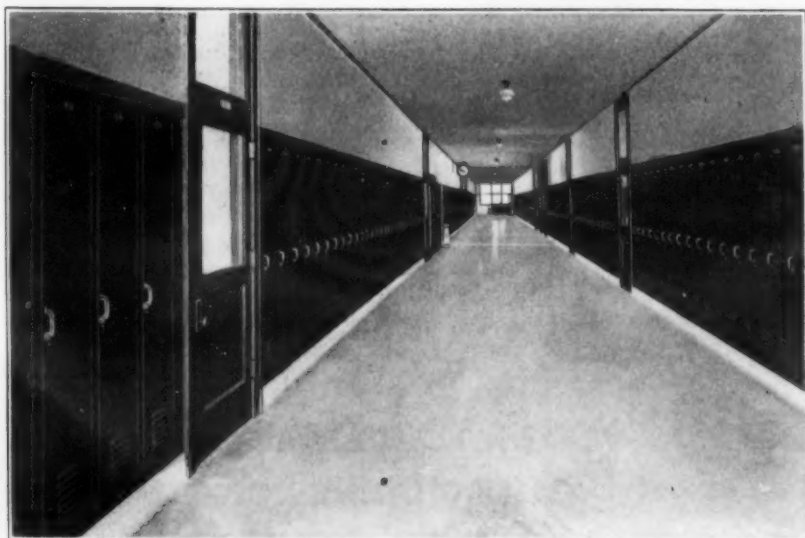


FIG. 4. CORRIDOR LOCKERS IN THE LINCOLN HIGH SCHOOL, MANITOWOC, WIS.

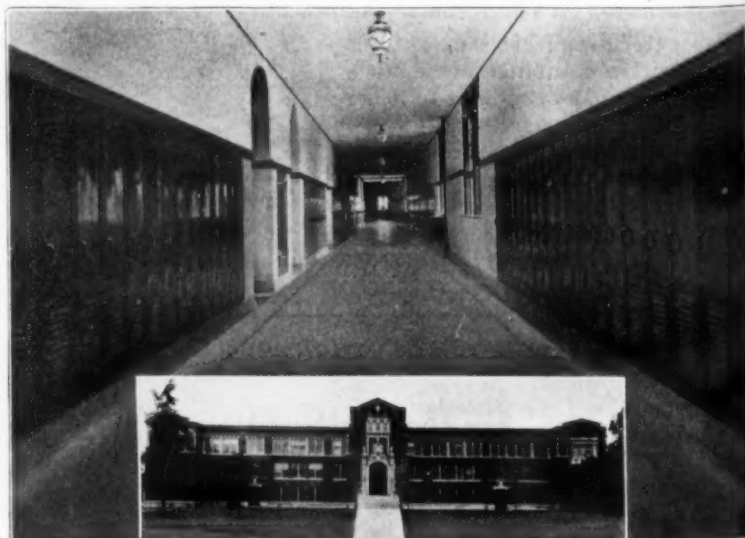


FIG. 5. CORRIDOR LOCKERS IN THE IRONWOOD HIGH SCHOOL, IRONWOOD, MICH.



Our one interest—

Reinforced Rubber Flooring

THE INTELLIGENT TREATMENT of the floor which makes the Cafeteria of the Illinois Merchants Bank so attractive, distinctive and inviting is possible because every member of our organization is vitally interested in the success of each particular Stedman installation.

Stedman originated reinforced rubber flooring and Stedman designs, makes and lays reinforced rubber flooring only.

This concentration of interest assures you of a floor that is more durable and more attractive than any other manufactured floor.

J. H. Stedman
NATURIZED FLOORING
PATENTED

STEDMAN PRODUCTS COMPANY

"Originators of Reinforced Rubber Flooring"

SOUTH BRAintree, MASSACHUSETTS

Agencies in principal cities

See local telephone directory

Direct Branches

101 Park Avenue
NEW YORK
1217 Book Bldg.
DETROIT

343 So. Dearborn St.
CHICAGO
1524 Chestnut St.
PHILADELPHIA

4 Park Street
BOSTON
216 Union Bldg.
CLEVELAND

Manufactured and sold in Canada by the Gutta Percha and Rubber Ltd., Toronto

Typical Stedman Floor Installations

BANKS
Pacific Bank, New York City
First National Bank, Detroit
Federal Reserve Bank, Phila.
Atlantic National Bank, Boston
BUSINESS OFFICES
McKim, Mead & White, N.Y.
S. W. Strauss Co., Philadelphia
Mayor's Office, Quincy, Mass.
CHURCHES
St. Gregory's Church, Phila.
St. Paul's Church, Camb., Mass.
Christian Science Church, Cleve.
CLUBS
Grosse Point Country Club, Det.
Union League Club, New York
Elks Club, Philadelphia
HOSPITALS
Boston Lying-in Hospital, Boston
Touro Infirmary, New Orleans
Children's Hospital, Columbus

HOSPITALS
Fifth Avenue Hospital, New York
Jefferson Hospital, Philadelphia
HOTELS
Ritz-Carlton, New York City
Tuller Hotel, Detroit
Sinton Hotel, Cincinnati
OFFICE BUILDINGS
General Motors, Detroit
Century Building, Pittsburgh
Packard Building, Philadelphia
RESIDENCES
References on request
SCHOOLS AND COLLEGES
St. Mary's Seminary, Cleveland
High Schools, Denver
Public Schools, Boston
SHOPS
Stetson Hat Store, Philadelphia
Nettleton Shoe Store, New York
Russek Beauty Shop, New York

Stedman

REINFORCED RUBBER FLOORING

Stedman Flooring as used
in the Illinois Merchants Bank, Chicago.
Archts. Graham, Anderson, Probst & White.

The NORTON Closer With Hold Open Arms Is Best Suited For Schoolhouse Work

Every Schoolroom Should Have One

1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds, the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Hold-Open Device connected with the arm of the Door Closer is automatic, a child can operate it—just a push or pull on the door is all there is to do it. Does away with door stop, hook or strap to hold the door open.

SERVICE:—We have expert servicemen on call, free of charge.

PRICE:—The price is right. Send for a representative.

THE NORTON DOOR CLOSER CO.

2900-2918 N. Western Avenue,

Chicago, Illinois.

Use the Norton Liquid Door Closer with Hold-Open Arms and do away with door stop on bottom of door.



A Partial List of Schools NORTON Equipped

Skinner Junior High School,
Denver, Colo.
North East High School,
Minneapolis, Minn.
Chicago Public Schools
Toronto Public Schools
East Side High School,
Cincinnati, Ohio.
Cass Technical High School,
Detroit, Mich.
Technical High School,
Omaha, Nebr.

(Concluded from Page 76)

gree of satisfactory service. In general, locker ventilating systems are of the concrete base duct or metal pipe duct types. Where the position of the locker is practically permanent, the concrete base will be found very satisfactory. Care must be taken, however, in setting the lockers to secure air-tight joints, so that the air must come in through the locker.

The pipe system may be made equally satisfactory as the concrete ducts, if the lockers are connected to ventilating stacks and exhaust fans, are used to create a slight vacuum. It will generally be found impracticable to secure complete ventilation by a gravity ventilating stack or by fans drawing air out of the room. When more complete ventilation is required, as in the case of gymnasium locker rooms, a blower should be used in addition to the exhaust fans. The area of the ventilating ducts should exceed the area of all ventilating openings in connection with the lockers.

Where lockers are connected to a pipe air duct at the top, the bottom of the doors only

should be louvered. Where they are connected to a duct in the cement base, then only the top of the doors are louvered.

The flow of air can be regulated to a certain extent by a damper plate placed over the perforations in the lockers which connect to the vent, but this has not always proven successful. The students are likely to tamper with the plates when closed or partly closed.

The big drawback of forced ventilation is that all of the lockers seldom receive the same air supply or suction. Lockers nearest the main duct have a good draft, while those further along the line receive little, if any. This has led to the installation of the dampers described but very little has been done to perfect the system. The ventilation of lockers is a problem for the ventilating engineers and experts to work out. It rests with these engineers to provide a system that will give entire satisfaction under all conditions.

(To be continued)

WILL STUDY SCHOOL ADMINISTRATION

The correlation of business management and school administration is to be the subject of a nation-wide study by a committee appointed by the Secretary of the Interior and the Secretary of Commerce, Washington. The committee chosen consists of John J. Tigert, Thomas E. Finegan, Elliott H. Goodwin, Ernest Greenwood, George D. Strayer, and John H. Beveridge.

The work of the commission will include the study of such fundamental questions as business administration and methods of financing, including taxation and bond issues for school purposes, as well as the construction of new buildings, the purchase of sites for school buildings which will anticipate the growth of the population as well as provide adequate playground facilities and room for extension of the school plant, development of plans by competent archi-

teets within or without the school system, supervision of construction, heating, lighting, ventilating apparatus and other machinery, upkeep, painting and repairing, replacement of school furniture and equipment, surfacing of yards and playgrounds, landscape gardening, textbooks, paper, ink, and other materials used in actual instruction, and adequate equipment for special purposes.

—Attorney General O. L. Carlstrom has ruled that non-high school districts along the state line in Illinois are not liable for tuition charges incurred by grade school graduates who cross the line into an adjoining state to attend high school. The opinion was given to P. H. Lewis of Lawrence County, who found that a number of eighth-grade graduates of non-high school districts in his county had been crossing the river to attend school in Knox County.

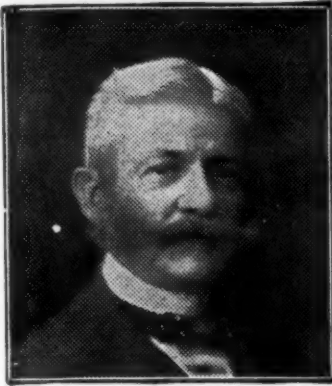
The attorney general pointed out that the natural or legal guardian of the child, or any person causing them to be sent, would be liable for the tuition.



FIG. 6. CORRIDOR LOCKERS AT THE MONNIER SCHOOL, DETROIT, MICH.



FIG. 7. FREE STANDING CORRIDOR LOCKERS.



More Holden Book Covers

Were Manufactured, Sold and Used
in 1925 than in any previous year

because: they

**COST LITTLE WEAR WELL
SAVE BOOKS**

(Samples Free)

HOLDEN PATENT BOOK COVER COMPANY

MILES C. HOLDEN, President

SPRINGFIELD, MASSACHUSETTS



A. C. Monahan, Formerly U. S. Bureau of Education

THE WASHINGTON BOARD OF EDUCATION

The board of education of the District of Columbia will be appointed by the District Commissioners in the future, if a bill now before Congress passes. This bill has just been introduced by Senator Capper in the Senate, and Representative Zihlman in the House. It is referred to in the district as the commissioner's bill, because it was prepared by the district commissioners and introduced into Congress at their request. In addition to providing for the appointment of a board of education by the commissioners, it gives the commissioners additional functions in other affairs of the district. The proposal does not seem to meet with general approval with the people of the District, judging by recent discussion in parent-teacher associations and civic organizations. Prior to 1906, the commissioners did appoint the board of education. The results were not satisfactory as the commissioners seriously interfered with the free working of the board. It was, therefore, changed after several years of discussion, and the power of appointment was placed in the Supreme Court of the District of Columbia. The members of the court are appointed by the President. While this method has not satisfied the citizens of the District, it has, however, left the board of education much more autonomy than it had before. The popular demand is for a board elected directly by the citizens themselves.

This popular demand for an elective board is provided for in another bill already before Congress. This measure calls for an annual election each May at which three members of the school board will be elected for a three year

term. This would mean a board of nine members.

The bill is elaborate, as it is necessary to set up voting machinery, the citizens of the District having no vote on any question at the present time. This measure would put the machinery of voting in the hands of the school board. School districts would be used for voting precincts, at least fifty in number. School buildings would be used for voting places. The board of education would appoint three judges for each voting precinct. Persons desiring to vote would be required to register in the office of the school board, or on certain specified days in their own precincts. The registration office would be open for sixty days, closing six days before the actual election.

The board of education would prepare printed ballots for the election, the ballots to contain the names of all persons for whom petitions signed by at least one hundred eligible voters had been filed at least thirty days, and not over sixty days prior to the election.

All residents of the District 21 years of age and over, who are citizens of the United States and have lived in the District one year, would be eligible to vote.

REORGANIZING THE INTERIOR DEPARTMENT

A movement with strong support which will have considerable effect on the Department of Education measure discussed in this column last month has just taken form in a measure introduced into Congress. It calls for the reorganization of the Department of the Interior into a Department of Public Works and Domain. It is sponsored by the American Engineering Council.

Committees of engineers with a total membership of nearly one thousand are being organized in every state in support of the bill. It provides for the transfer to this new Department of the Bureau of Public Roads now in the Department of Agriculture, the Office of Supervising Architects, the Rivers and Harbors Board, the Mississippi River Commission, the California Debris Commission, and other bureaus concerned with engineering. A total of approximately thirty bureaus and services would be consolidated.

Life Certificate in N. E. A. to Dr. Frank W. Ballou

The Federal Schoolmen's Club of Washington, D. C., has just presented Dr. Frank W. Ballou, superintendent of schools of the District of Columbia, a life membership certificate in the National Education Association. This is done from surplus money remaining from the dinner fund raised by the club last spring to pay the expenses of a complimentary dinner to Dr. Ballou in honor of his election to the presidency of the Department of Superintendence.

Teachers' Pensions

Larger pensions for retired teachers in the District of Columbia are to be obtained if possible under a plan agreed upon by the teachers' council and the school administration. Congressional action is necessary, as an amendment to the present law. The proposals are given in a circular issued by the superintendent's office as follows:

TO ALL ADMINISTRATIVE AND SUPERVISORY OFFICERS:

The superintendent of schools directs the attention of all educational employees to the following data with reference to the present provisions of Law and the proposed amendments to the Act for the Retirement of Public School Teachers in the District of Columbia, approved January 15, 1920:

PRESENT LAW PROVIDES	PROPOSED AMENDMENTS PROVIDE
for deductions 4% to 8% deductions taken on basic salaries up to \$1,500.	for deductions 4% to 8% deductions on real salaries up to \$2,000.
for annuities 1% of average basic salary since appointment of those appointed since 1906 (1% of average basic salary since 1906 of those in the service in 1906), multiplied by the number of years of teaching. Maximum average salary allowed for computation, \$2,000.	for annuities 1% of average real salary received during the ten years immediately preceding retirement, multiplied by the number of years of teaching. Maximum average salary allowed for computation, \$2,000.

An Example for the Nation!

Schools teach more than the three R's. It is part of the curriculum in every school to train and encourage pupils to shine their shoes, brush their teeth and keep their work neat and clean.

To do this effectively schools should set an example. Sanitation should be practiced as well as preached.

Simply sweeping or mopping floors is far from sufficient to maintain *clean* floors. Schools are rapidly learning this, as evidenced by the tremendous growth in the number of schools using the FINNELL Electric Floor Machine.

The FINNELL gets all the filth out of the cracks and grain of the wood. It takes a strong electric motor and ample pressure and speed to do this. A mop can never do it. On the contrary, it fills the cracks and pores with a thin film which is loosened by the scuffing of the children's feet.

Every school should have a FINNELL to get and to keep *Clean Floors*. But, in addition, it saves money. A No. 17 FINNELL will scrub the average class room of 400 square feet, in from 45 minutes to an hour. The entire job requires only two operators.

Write for our booklet "Your Questions Answered by Users"

FINNELL SYSTEM, Inc.

Floor Machine Headquarters for Twenty Years

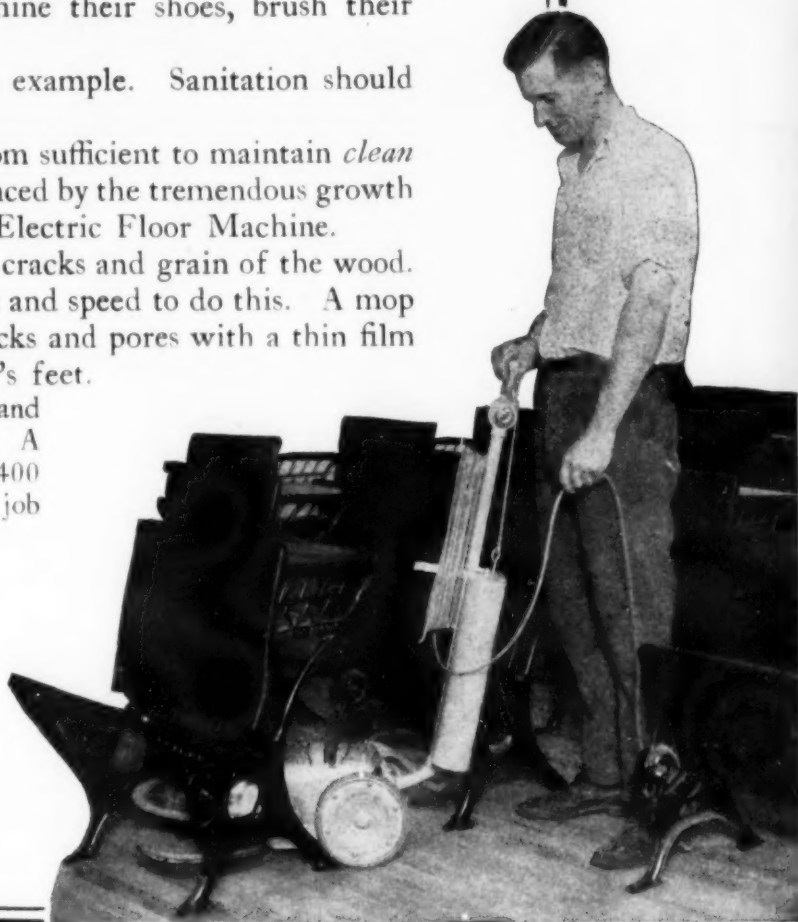
82 North Collier Street — Hannibal, Missouri

FINNELL

ELECTRIC FLOOR MACHINE

It Waxes—It Polishes—It Sands—It Scrubs

District offices in principal cities



lowed for computation, \$1,500	plus \$15 contributed by the Government, multiplied by the number of years of teaching.
plus \$10 contributed by the Government, multiplied by the number of years of teaching.	minimum annuities Minimum pension for age, \$720.
minimum annuities Minimum pension for age, \$490.	Minimum pension for dis- ability, \$720.
Minimum pension for dis- ability, \$420.	

Council on Universities and Colleges in the District of Columbia

A Council on Universities and Colleges in the District of Columbia is proposed by Senate Bill 980 which is now before the Committee on Education in the Senate. The function of this council, if created, would be to control the granting of collegiate degrees by institutions chartered in the District or by institutions chartered elsewhere and operating in the District. It would be a function of this Committee "to establish in accordance with generally recognized principles such definitions, requirements, or standards, as it may deem necessary and proper for all incorporated educational institutions in the District of Columbia wherever incorporated, which have or claim to have or attempt to exercise power to confer or grant in the District any academic, professional or technical degree." It would also approve or disapprove applications for charters.

The board would be composed of the president of the district board of commissioners, the district superintendent of schools, the U. S. Commissioner of Education and six persons appointed by the President of the United States.

The establishment of this Board is in line with action taken in several states where qualified authority passes upon charters for degree granting institutions. In the District of Columbia no such authority is found. Under the present law any five persons may file an application for a charter to incorporate an educational institution with powers to grant any or all degrees. There is no authority to see that the incorporators are competent or that they have any facilities or intention of conducting a legitimate institution. The result has been that in the District many fake colleges and universities have been incorporated, which have flourished largely through the sale of degrees to various persons throughout the world without requiring these

persons to show qualification in any way for receiving degrees. A campaign against such institutions has been conducted for fifteen years at least by the United States Bureau of Education and by other cooperating educational agencies. These campaigns have not been very successful because the only law that apparently can be invoked is the Post Office regulation in regard to the use of the United States mails for fraudulent purposes.

SCHOOL LAW

Schools and School Districts

Where the result of a transfer by the county superintendent of public schools of the territory of one school district to another would require children who resided only a mile from a schoolhouse in another district to travel from twenty to thirty-five miles in order to attend school in their own district, it is held that such annexation was not "reasonable" within the meaning of the Washington Laws of 1923, p. 74.—Appeal of Chicago, M. & St. P. Ry. Co., 235 Pac. Reporter (West), 355.—Wash.

School District Government

Under the Texas revised statutes, art. 4510, giving the state superintendent of public instruction power to hear and determine appeals from rulings and decisions of subordinate school officers he has power to hear and determine such appeals from all subordinate school officers, and not those of schools organized in certain way.—South San Antonio Independent School Dist. v. Martine, 275 S. W. Reporter (West), 265, Tex. Civ. App.

School District Property

Under Wilson's Rev. and Annotated Statutes of 1903, § 6184, of the Oklahoma Complete Statutes of 1921, § 10364, to authorize a contract for building a schoolhouse and render legal warrants issued in payment thereof, it was necessary to have a district meeting and agree on the house to be built by qualified electors thereat.—Edwards v. School District No. 222, Cotton County, 235 Pac. Reporter, 611.—Okla.

The legality of a contract for building a schoolhouse, and warrants issued to pay for it under the Wilson's Rev. and Annotated Statutes of 1903, § 6184, of the Oklahoma Complete Statutes of 1921, § 10364, and the Act of Cong. of July 29, 1886, § 4 (U. S. Comp. St. § 3483), fixing the limit of indebtedness at four per cent of the taxable property, did not depend on whether the property had been assessed prior to the contract.—Edwards v. School District No. 222, Cotton County, 235 Pac. Reporter, 611.—Okla.

Under the Oklahoma law the courts will not aid the seller to a school district to recover property sold and delivered under the contract, creating debt in excess of the constitutional or statutory limit.—Edwards v. School District No. 222, Cotton County, 235 Pac. Rep., 611.—Okla.

School District Taxation

The Alabama School Code of 1924, § 104, authorizing the county board of education to borrow money and to pledge current revenues therefor, when construed with the Constitution of 1901, §§ 260, 261, 256, and Amend. 3, being article 19, §§ 1-3, held to authorize a county board of education which had exhausted the public school funds for the current year to borrow money to pay the salaries of teachers and the current expenses for the current school year, secured by the pledge of revenues for the succeeding year; "pledge" meaning to set apart, appropriate, or charge with payment of a specific obligation authorized by the Alabama law.—Heustess v. Hearin, 104 So. Rep. 273.—Ala.

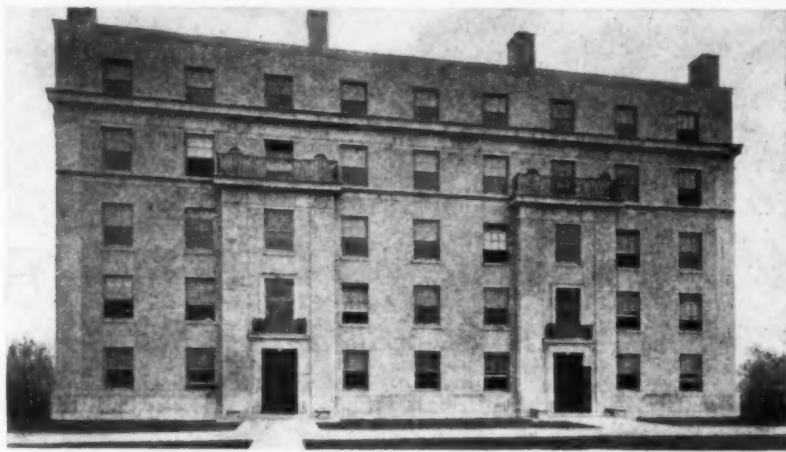
Under the Alabama School Code of 1924, § 104, authorizing the county board of education to borrow money, this being a grant of power and defining extent and limits of such power, must be construed as a whole to ascertain its intent.—Heustess v. Hearin, 104 So. Rep. 273.—Ala.

Under the Oklahoma law, the debt of a school district in excess of the constitutional or statutory limit is void, and cannot be held valid on any theory of quantum meruit or equitable obligation.—Edwards v. School Dist. No. 222, Cotton County, 235 Pac. Rep. 611.—Okla.

A bank seeking to recover loans made to a school district and evidenced by school orders, admittedly issued without authority as provided

(Continued on Page 84)

FLOORING



Dormitory of the Massachusetts Institute of Technology (Duraflex-A Flooring throughout)

BOSWORTH WELLS, Architect, New York City

THE HOUSING CO., Engineers, Boston HOLT-FAIRCHILD, Builders, Boston

WHAT MAKES A FLOOR QUIET? First, elimination of sound vibration ordinarily created by floors acting like a drum. Second, reduction of the reflected sound waves.

Tests at the Laboratory of Acoustics, Massachusetts Institute of Technology, proved that DURAFLEX-A decreases sound 16% and reflected sound by 39% over other floor coverings contemplated for the same purpose. Add to that, its superdurability; unusually low maintenance and cleaning cost; ease of repair and extension! A solid, seamless, rubbery surface, proof against water, fire, acids, and alkalis. Worth knowing more about!

Write your name and address on the page margin and mail the page for
COMPLETE INFORMATION

The DURAFLEX COMPANY, Inc.

OFFICES
Boston Philadelphia New York
Baltimore Washington
REPRESENTATIVES
Montreal, Can. Richmond
Cincinnati Greensboro, N. C.

Main Office and Plant: BALTIMORE

REPRESENTATIVES
Wilkes-Barre Greenville, S. C.
Reading, Pa. Atlanta
Cumberland, Md. Los Angeles
San Francisco

There is no Substitute
for Quality Duraflex

DURAFLEX-A

MAIL
THIS
BACK

The DURAFLEX COMPANY, Inc., Baltimore, Md.

Send me full details on Duraflex-A Flooring. Cost; installations; and how Duraflex-A can be applied over any type of existing flooring, as well as in new buildings. (I understand that this involves no obligation on my part.)

Name _____
Address _____
City _____
Position _____



Type W628
Brascolite

Take the
Shadows
Out of
The Classroom

BRASCOLITE

As Necessary As Text Books

In an endeavor to train the young mind to keep pace with the rapid advance of education, schools and colleges have established very high standards.

Every effort in the way of sanitation, ventilation, personal hygiene, and instruction is made to maintain these standards. But quite often, and unknown to school authorities, poor lighting equipment is responsible for a seeming lack of student interest and study.

For years, we have specialized in school and college lighting and the marked enthusiasm of school superintendents and teachers for Brascolite testifies to our success.

Let our engineers consult with you to determine the correctness of your present lighting equipment. You will not be under obligation. Just send us a card.

The EDWIN E. GUTH COMPANY
DESIGNERS - ENGINEERS - MANUFACTURERS
Lighting Equipment
2627 Washington Ave., SAINT LOUIS, U. S. A.
Branch Offices (Sales and Service) in All Principal Cities



Type W643
Brascolite

Largest
Manufacturers
of
Lighting Fixtures

JR227

(Continued from Page 82)

in the Wisconsin Statutes of 1919, § 40.11, subd. 2, and hence illegal, is held not entitled to recover such loans, where it was not established that money so loaned was used by the district for school purposes and lawful expenses, and the bank did not exercise ordinary care in that it failed to demand the return of the loan within six months, which is the limit of time for which the board is authorized to borrow.—First Natl. Bank v. Joint School Dist. No. 1, Town and Village of Pepin, 203 N. W. Rep. 762.—Wis.

Under the Kentucky law, where a school board by mistake entered no order levying taxes for school purposes for certain years, and the sheriff and board proceeded on the assumption that the order had been entered, the board could not thereafter enter orders nunc pro tunc.—Commonwealth v. Griffy, 271 S. W. Rep. 560.—Ky.

Under the Georgia Acts of 1923, P. 837, requiring the commission of the city "to declare the result" of a special election to increase the limit of taxation from returns made by managers of election, the action of the city commission in not declaring the result but permitting some of the election managers, and others not managers, to open ballot boxes and recount the ballots and certify different results, is held unauthorized.—Hopkins v. City Commission of Waycross, 127 S. E. Rep. 862.—Ga.

Where a majority of voters at an annual school meeting, held as provided by law, an approved estimate of needs of a district for current fiscal year, submitted by officers of the district, excise board as authorized thereby to approve an estimate in such particulars as seem reasonable and cause levy to be made to meet estimated needs within the constitutional limitation.—St. Louis & S. F. Ry. Co. v. Kelsey, 239 Pac. Rep. 130.—Okla.

Under the Georgia laws, where the purpose of an injunction was to restrain the expenditures of school funds of the district in the maintenance of a high school, relief being inappropriate to remedy past expenditures, the county board at a meeting on September 3, 1924, adopted a resolution establishing a high school, it was not an error to refuse interlocutory injunction to restrain the use of school funds on the ground that it has not been established by official action of the board, the proceeding hav-

ing been instituted by the plaintiffs subsequent to the action by the board.—Smith v. Tolbert, 127 S. E. Rep. 868.—Ga.

Under the Pennsylvania Taxpayers' bill seeking to restrain the establishment of a joint high school under the Pennsylvania School Code of 1911, 1801 (P. L. 309; Pa. Statutes of 1920, § 1514), which alleged that the present building was adequate, that the proposed building was unnecessary and its location remote, that its establishment would be an unreasonable expenditure of school funds, and that future high school needs could be furnished more economically and the building could be more conveniently located, alleged only opinions and inferences, and failed to show that the board was exercising arbitrary will or caprice.—Day v. School Dist. of Amwell Twp., 128 Atlantic Rep. 846.—Pa.

Discipline of Schools

In view of the Mississippi Constitution, 1890, § 207, prohibiting the intermarriage of persons of white and negro races, and Annotated Code of 1892, § 2859, prohibiting intermarriage of white and Mongolian races, in the Mississippi Constitution of 1890, § 207, providing that there shall be separate schools for white and colored races; term "white race" is limited to Caucasian race, and term "colored race" embraces all other races to that of the child of Mongolian race, is not entitled to attend school for persons of the white race.—Rice v. Gong Lum (Miss.), 104 So. Rep. 105.—Miss.

The dominant purpose of the Mississippi Constitution in providing for the separation of races was to preserve purity and integrity of the white race, and prevent amalgamation, and to preserve social systems of race segregation.—Rice v. Gong Lum (Miss.), 104 So. Rep. 105.—Miss.

Under the Mississippi statutes, the whole territory of a county is divided into school districts for each of the white and negro races separately.—Rice v. Gong Lum (Miss.), 104 So. Rep. 105.—Miss.

Under the Oregon Compulsory Education Act, which, practically construed, requires all normal children between the ages of 8 and 16 years to attend public schools, is held unconstitutional.—Pierce v. Society of the Sisters of the Holy Names of Jesus and Mary, 45 S. Ct. 571.—Ore.

Teachers

Where a school teacher was discharged by a district board of trustees, and was afterward reinstated by the state board of education, before suing for salary due under contract it was necessary for him to make a demand on the board of trustees.—Underwood v. Sabinal Independent School Dist., 275 S. W. Rep. 267, Tex. Civ. App.

A petition by a school teacher against a school district to recover salary must affirmatively state that, when action was begun, there were funds in the hands of trustees sufficient to pay off and discharge claim, and allegation that trustees had funds at the time the contract was made, and during the contract term is not sufficient.—Underwood v. Sabinal Independent School Dist., 275 S. W. Rep. 267, Tex. Civ. App.

Pupils

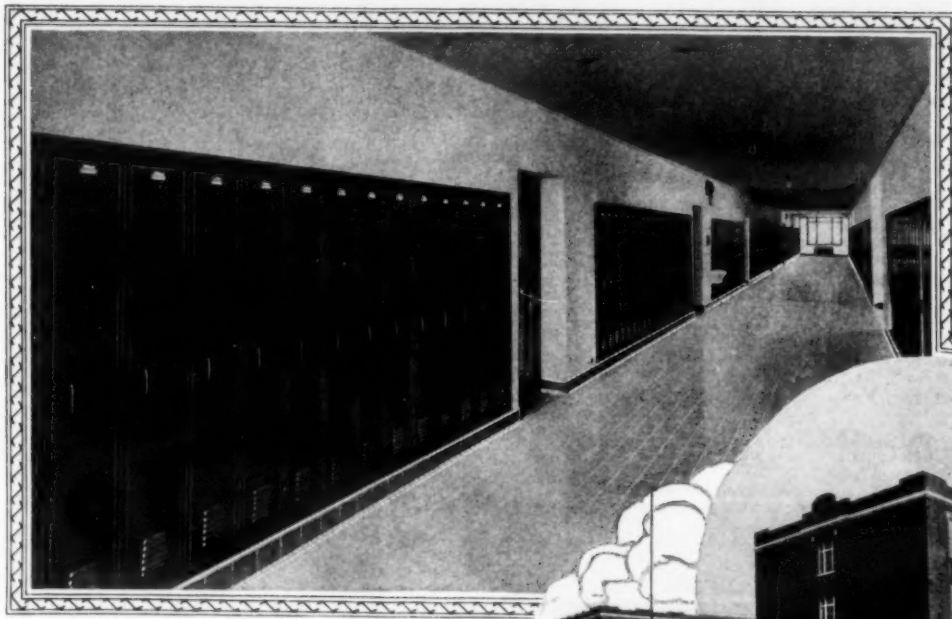
In view of the Ohio general code, §§ 7731-4, 7749-2, 7764-1 (109 Ohio laws, pp. 290, 380), a parent, residing more than four miles from a high school in a rural school district compelled to transport his children of compulsory school age who have finished an ordinary grade school curriculum to high school more than four miles from their residence, because of a refusal of the local and county boards of education, either to provide work in high school branches at school within four miles of children's residence, or to transport children to and from high school, may recover in law action for such transportation.—Sommers v. Putnam County Board of Education, 148 N. E. Rep. 682.—Ohio.

LAW AND LEGISLATION

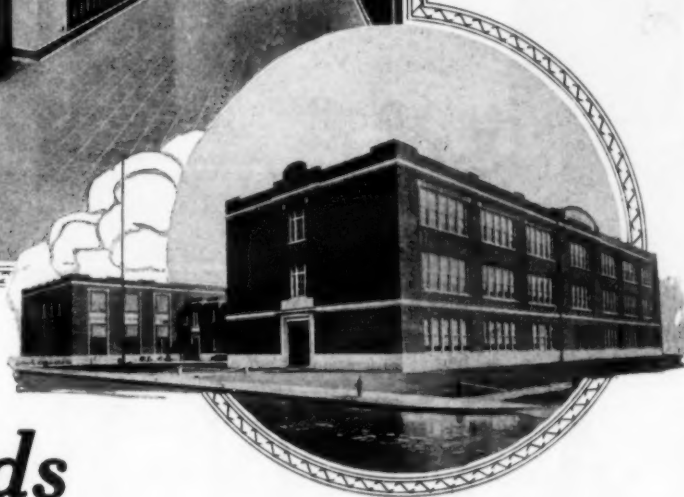
—If a school district is created, in Wisconsin, the division of the assets and liabilities by the school boards of the districts affected does not give the new district any right to claim any state and county money on account of the children residing in the newly created district until the school has been maintained for one year and the annual report filed with the superintendent.

Under a recent decision of the Wisconsin Department of Public Instruction, a school district treasurer who is also town treasurer, and who has embezzled a considerable sum of money belonging to the town, does not escape liability for embezzlement if the deficiency in the town moneys is made good by using money from the district funds. (Concluded on Page 86)

LYON STEEL LOCKERS



View of exterior and corridor of Wm. Nottingham Junior High School, Syracuse, New York.



Syracuse Builds Well and Wisely

In any town no project is closer to the hearts of the people than the building of a school for their children. And no undertaking receives more thought from those in charge. Beauty is faced by supposed practicality. Final economy confronts first cost.

In school after school from coast to coast, just as in Syracuse, N. Y., the selection of cloak room and gymnasium accommodations finally rests upon Lyon Steel Lockers.

In this view in the Wm. Nottingham Junior High School you can see their real practicality. Nearly a thousand Lyon Steel Lockers are recessed into the walls — as permanently a part of the building as the steel and concrete. The corridors are clear. Order is natural. How much better than the old-fashioned cloak rooms!

There is beauty, too, for the finish of Lyon Steel Lockers is pleasing and lasting, the alignment is permanent. The strong frames keep Lyon Steel Lockers in line. The rugged doors will not sag or jam. They successfully withstand even schoolboy use.

Finally, because there is durability there is also economy.

In your corridors and locker rooms use Lyon Steel Lockers. We will gladly help you with your plans, out of a nation-wide experience. Write us about your school and your needs.

Lyon Metallic Manufacturing Company Aurora, Illinois

BOSTON	161 Devonshire St.	LOS ANGELES	337 S. Anderson St.
CLEVELAND	815 Superior Ave., East	CHICAGO	230 E. Ohio St.
PITTSBURGH	437 Smithfield St.	DETROIT	149-159 W. Fort St.
ROCHESTER	61 South Avenue	NEW YORK	342 Madison Avenue
PHILADELPHIA	1319 Filbert St.	SAN FRANCISCO	906 Hobart Bldg.



for every storage need

✦ ✦ AUTHORIZED AGENTS IN OTHER PRINCIPAL CITIES ✦ ✦



THE features of MagneStone Composition Flooring make it ideal for use in school buildings. It is fireproof, sanitary, easy to clean, dustless, quiet to walk on, elastic to the step, light in weight and it adds dignified beauty to the room. MagneStone Composition Flooring can be used in new or old buildings. It is laid one-half inch thick over new or old wood or concrete floors. We contract for the laying of flooring jobs. The work is done by our experts which insures an installation that will last as long as the building. We will be glad to send samples and full information covering the many advantages of MagneStone Composition Flooring for schools.

AMERICAN MAGNESTONE CORPORATION
Dept. 100
General Office: Springfield, Ill.
Factories at
Springfield, Ill. Kansas City, Mo. Ottawa, Ill.

MAGNESTONE

COMPOSITION FLOORING

(Concluded from Page 84)

The fact that the other two members of the board were induced to become parties to the transfer does not amend or modify the situation in the least. In fact, the other members place themselves in position to be successfully accused of collusion and fraud.

—The Wisconsin Department of Public Instruction has declared it is not advisable to elect a town officer to a school district office even though the offices may not be held as incompatible by the courts. As the town chairman is also director of the board, it is likely to confuse self interest with justice, especially in matters affecting boundary changes.

—The school board of Versailles, Ohio, in 1923, issued \$256,000 worth of bonds for a new building. Through a taxpayer's suit the issue was declared illegal by the supreme court and all funds received from the sale of the bonds were refunded. Taxes were, however, exacted for two years in order to meet the interest charges. Some 586 taxpayers now have brought suit against the school board for a \$40,000 tax money refund.

—The Norristown, Pennsylvania, school board placed an assessment of \$3.50 on teachers for institute expenses, ordering that at the same time the forfeiture of salary of those who failed to attend. A teacher contested the assessment in court, but lost his case. He contended that the law did not authorize the school board to make such an assessment. The court held that the law did not forbid such action either, and decided in favor of the board.

—Two members of the school board district 76, Creek County, Oklahoma, Joseph Peters and H. A. Pixley, were ousted by County Superintendent Oliver H. Akin, whereupon they appealed to the court at Sapulpa. The two men were declared legally in office and the appointment of two other officials to fill their places was declared void. The superintendent announced through his attorneys that he would appeal his case to the supreme court.

—The board of education of Hartford, Connecticut, has carried out the rule that all children must be vaccinated. Pending a case in court which questions the right of the board to exclude children not vaccinated the rule is still

enforced. The judge now criticizes this action and says: "Such action on the part of the board of education is not consonant with American ideals. It is not the American way. They should abide by the preliminary finding of a court. I had stated that the children should be allowed to attend school pending adjudication of the case. It is only fair that they shall not suffer while the case is being considered."

The doctrine that the schools are institutions of the state rather than the municipalities was recently reiterated by supreme court of Wisconsin. The school system of Milwaukee had been granted by the legislature several years ago a mill tax which was collected by the regular municipal machinery. When the city was granted home rule a year ago it was contended by the common council that the extent of the support granted the schools was now within the authority of that body. Litigation followed with the result that the supreme court decided that the schools were an institution of the state and not of the municipality.



DECENT HANGOUTS FOR NEW YORK CITY BOYS.
—N. Y. World.

—The Wisconsin department of public instruction has ruled that while a principal is generally responsible for the discipline of every department under his jurisdiction, the teacher in charge is especially responsible. The principal is in duty bound to advise with his teachers in all disciplinary matters and to give personal assistance in special cases, if needed. It must be recognized that the teacher, principal, or assistant, who does not and cannot maintain proper order in the school is inefficient and the effects of lack of discipline are likely to adversely follow any particular grade through its entire school life, and then some. Proper disciplinary training in the school is as important as the accumulation of book knowledge is likely to be.

Another ruling by the same department is to the effect that, if damage occurs to school property by accident, no reparation for the damage can be secured, if the parent refuses to pay. If, however, the damage is done maliciously, then the pupil or the parent is held responsible, and if no reparation is made, the pupil may be suspended from school for malicious conduct.

Funds especially secured by a bond issue for the erection of a school building in a city cannot be legally applied to and used by the city council for city purposes.

—The Seattle, Wash., board of education opposes the proposed measure whereby the state is to go into the printing of school books as being detrimental to both pupils and taxpayers.

—The supreme court of Arkansas has upheld the validity of the act passed in 1921 whereby the county superintendent is elected by the county boards of education, and declared void the special act whereby Lonoke county elected its superintendent by popular vote.

—Rock Island, Ill. Upon the recommendation of local physicians, the school board has abandoned its plan to administer the toxin-antitoxin treatment for diphtheria in the school clinic. The material has been turned over to local physicians and parents; if they so desire, may have the test administered to their children by the family physician.

KEEP RUST COST OUT OF THE SCHOOL BUDGET

DON'T let RUST increase your school budget.

Enduring metals in school construction will banish repair and replacement costs.

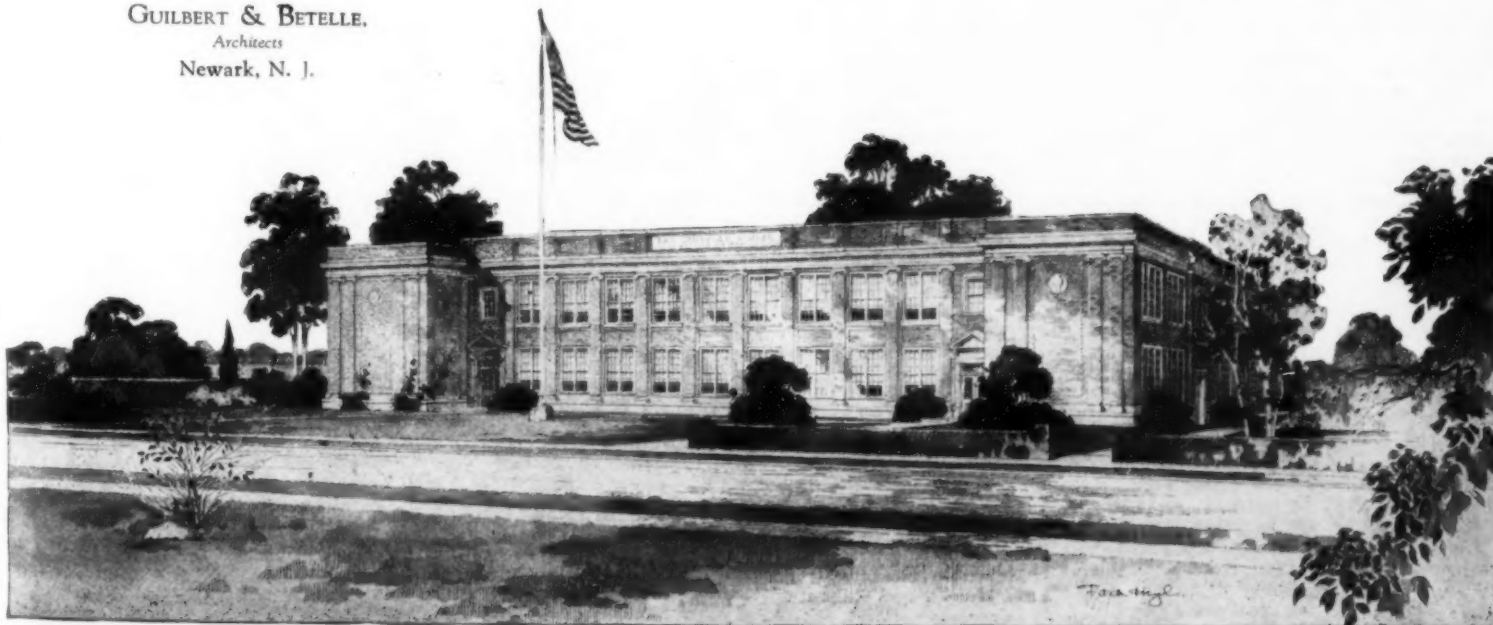
Use COPPER for roofing, downspouts and gutters. BRASS PIPE plumbing is trouble-proof because rust-proof. BRASS or BRONZE hardware and lighting fixtures give lasting wear.

Consult our Building Service Department. No charge.

COPPER & BRASS
RESEARCH ASSOCIATION
25 Broadway - New York

This school at Kearny, N. J.,
has BRASS pipe.

GUILBERT & BETELLE,
Architects
Newark, N. J.



PROFESSIONAL SCHOOL SERVICE DIRECTORY

CLARENCE D. KINGSLEY

EDUCATIONAL ENGINEER AND CONSULTANT

Cooperating with architect and superintendent
to meet all needs at minimum cost
Formerly State Supervisor of Secondary Education,
Massachusetts, 1912-23
Service available to
Architects and School Boards

HOTEL WINDERMERE
CHICAGO, ILL.

B. ASHBURTON TRIPP

Landscape Architect and Town Planner

Designer of

SCHOOL AND INSTITUTION GROUNDS

Guardian Building Cleveland, Ohio

Member, American Society of Landscape Architects

POWER PLANTS
HEATING & VENTILATION
ELECTRICAL & SANITARY WORK

SPRAGUE & SLOCUM

50 East 41st Street, New York City

25 Years Successful Practice in the Art of Ventilation

A. M. ALLEN & COMPANY

Architects & Engineers

7016 Euclid Ave. Cleveland, Ohio
Telephone: Penna 3140

ALFRED KELLOGG

Consultant to School Departments

Pertaining to Central Plants, Heating and Ventilation,
Illumination and Sanitation. Plans when desired.

89 Franklin Street, Boston Massachusetts.

LARSON & WELLS

Architects & Engineers

Specializing in School and College
Buildings in Northern New England

Hanover, N. H.

CARL F. PILAT

LANDSCAPE ARCHITECT

Specialist in the design and development of
Institution Grounds and Playground Parks

Associated Technical Advisory Corporation Consulting Engineers
Member, American Society of Landscape Architects

15 Park Row New York City

WALTER E. GILLHAM

ARCHITECTURAL ENGINEER

Specializing in The Design of Heating, Ventilating,
Plumbing, Electric Wiring and Refrigeration Systems.

NOT A SALES ENGINEER 409 Interstate Bldg.
Kansas City, Mo.

SCHOOL FINANCING

For the past fifteen years we have specialized
in the purchase of School Bonds.
We furnish blank bonds, prepare proceedings and attend to all
legal details relating to proposed bond issues.
If you contemplate New School Financing
Write us Today

THE HANCHETT BOND CO.

2 So. LaSalle St. Chicago, Ill.

LESLIE E. WHITE

LANDSCAPE ARCHITECT

Playground Engineering and the Landscape treat-
ment of Institutions and School Grounds.

Specializing in the development of school grounds in the
Gulf States.

Lafayette, Louisiana

CHARLES FOSTER

Member A. S. M. E.—A. S. H. & V. E.

CONSULTING ENGINEER

Heating, Ventilating, Plumbing and Lighting for Schools.
Professional Service for Architects.

512 Sellwood Bldg., Duluth, Minn.

Established 1898

JOHN NUVEEN & CO.

Municipal, County & School Bonds

We have assisted in the financing of schools in every part
of the country during the last 27 years. Information and
advice gladly furnished without obligation.

First National Bank Bldg. CHICAGO

BUILDING NEWS OF THE SCHOOLS

MILWAUKEE TO COMPLETE BUILDING PROGRAM

The five-year building program adopted by the school board in 1924 called for an expenditure of \$7,625,000 for buildings exclusive of sites. Up to October, 1925, outlays amounting to \$1,950,000 had already been authorized. Deducting this sum would leave \$5,675,000 still necessary to carry out the old program. It is considered possible that some saving may be made on the original estimate because of a tendency for growth rates to slacken. Deducting \$600,000 for this reason, the amount of the original building program still to be provided will be \$5,075,000. To this must be added the amount needed for the new fifth year of the program. It is estimated that \$2,375,000 will be needed to care for additional items not included in the previous program. These amounts, together with allowances for changes in the estimated requirements for certain buildings amounting to an addition of \$30,000 will make a total of \$7,480,000.

During the past year the board purchased land amounting to \$226,735. The original program called for \$813,000, thus leaving \$586,265 remaining to be provided in the old program. New parcels which are to be provided for will amount to \$250,000. This makes a total of \$836,265 needed for sites. The total of the building and sites program which has been recommended for the next five years is \$8,316,265.

There appears a necessity for speeding up the site purchasing program. Sites should be purchased before private concerns buy up all desirable tracts. It has been recommended that the board add an assistant to the secretary's staff whose work will be to purchase lands for school sites.

The funds necessary for financing the building program will be derived from the proceeds of bond issues and from money raised directly by taxes. It will be necessary to issue bonds to the full extent to which the school board is

entitled under the law. The voters have approved a bond issue of \$1,000,000 for the present year and the city council has authorized the issuance of the bonds. For the four succeeding years, the following amounts appear necessary: \$1,260,000, \$1,000,000, \$980,000, and \$1,100,000, respectively, making a total for the five-year period, 1925-1929, of \$5,340,000.

The school construction fund as of October, 1925, shows an unencumbered balance in the amount of \$1,129,950. This includes a cash balance of \$129,950, and a bond issue of \$1,000,000 approved by the voters in April, 1925.

SCHOOL BUILDING NEWS

—Philadelphia, Pa. The board of education has taken action providing for the creation of a permanent loan of \$5,000,000 and providing for the issuance of bonds evidencing the same. The bonds will be issued in denominations of \$1,000, \$10,000 and \$100,000 and will bear interest at the rate of 4½ per cent per annum, payable in May and November of each year.

—Fort Wayne, Ind. A high school is in process of erection. The building will have a seating capacity of 1,600 and will cost about \$900,000. Plans have been completed for a building program to total \$525,000, and to comprise three grade schools and an administration building.

—Rome, N. Y. A senior high school is nearing completion at the present time. The building was planned by Architects Tooker and Marsh, New York City, and is noteworthy for its appearance, its plan, and its modest cost.

—Jonesboro, Ark. The school board is completing an extensive building program begun three years ago. The program included an eleven-room colored school, a nineteen-room junior high school, and a three-room addition to a ward school.

—University City, Mo. The city recently voted bonds in the amount of \$470,000 to be used in building additions to two of the grade schools, and an addition to the high school. The bonds bear interest at the rate of four and one-half per cent and are payable serially to a period of twenty years.

—Chillicothe, O. A bond issue in the amount of \$800,000 was approved at the last November election. The bond issue provides funds for the

erection of a senior high school, an elementary-junior-high school unit, and for the remodeling of another building. The architects are Garber & Woodward, of Cincinnati, O.

—The school board of Erie, Pa., has adopted a resolution providing for the sale of bonds in the amount of \$500,000 for the acquirement of additional sites, grounds and buildings for educational purposes; to erect new buildings; to enlarge, alter, improve and repair present buildings, and to provide permanent improvements and equipment for school purposes.

—The \$200,000 school stadium at Newark, New Jersey, was dedicated on October 17th, with appropriate exercises. President P. A. Cavicchia of the board of education, handled the huge gilt key which unlocked the gates of the athletic field, and he in turn delivered the key to the boys and girls of the city to have and to hold for the future.

To commemorate the occasion, a gala circus was presented by 10,000 children before a crowd of about 8,000 spectators. The festivities consisted of a circus parade of more than a mile of gorgeous costumes, floats and clowns, gymnasium stunts, fancy marching by school children, tumbling, nature dances, clog dancing, freehand drill, pyramid building, and a gypsy pageant, ending up with an artistic kaleidoscope picture of all the schools grouped in artistic poses and in highly colored costumes.

—The new high school erected at Tacoma, Washington, at a cost of \$90,000, was named in honor of the late George A. Stanley, formerly principal of the central high school. T. A. Lind will head the school as principal. G. W. Bullard is the architect.

—The largest Japanese school in America was recently opened at San Francisco, California. The cost is \$100,000.

—Minneapolis, Minn. A new program of school construction, intended to save the taxpayers \$1,335,000 in school building expense in fifteen years, and make maintenance costs \$2,172 less a building annually than at present, has been presented to the board of education by four city officials.

The new program was made in a report prepared by A. C. Godward, consulting engineer of the board of estimate and taxation; Supt. Wm.

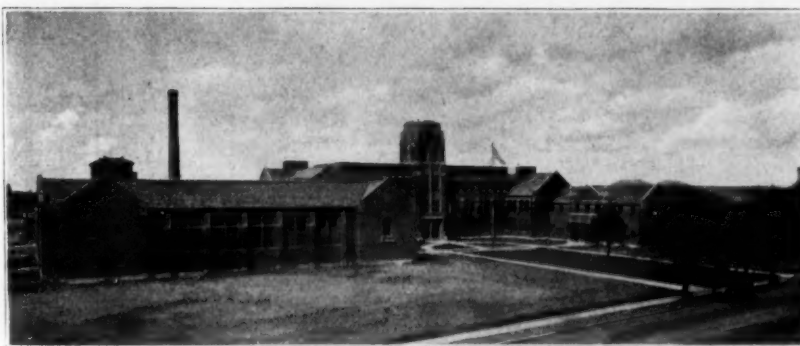
(Continued on Page 91)

DURABILT BASKET RACKS

"No better built than Durabilt!"



GYMNASIUM BASKET RACKS
INSTALLED IN GIRLS' ROOM
CENTRAL HIGH SCHOOL



CENTRAL HIGH SCHOOL
MISHAWAKA, IND.

The Durabilt "skeleton" type Basket Racks and Recessed Lockers installed in this school provide maximum ventilation and adequate storage space for all clothing.

Durabilt Standard Gymnasium Rack equipment, consisting of steel shelving and specially designed wire baskets, offers all the advantages of strength, security, and durability at low cost.

A combination of many exclusive features recommend Durabilt Products as the most desirable selection for any School, College, or University.

A request by phone to our nearest Sales Representative or mailed direct to us at Aurora will bring complete information and prices of the sizes particularly adapted to your requirements.

DURABILT STEEL LOCKER CO.

400 ARNOLD AVE. Sales Offices in all Principal Cities. AURORA, ILL.

(Continued from Page 88)

F. Webster; Geo. F. Womrath, school business superintendent, and E. H. Enger, architectural engineer of the board of education.

A workable plan has been developed which will fulfill the requirements of the elementary schools, and one which can be built at a cost much below anything yet built in the vicinity. The economies proposed are: Reduction in area of classroom units; reduction in height of classrooms from twelve to eleven feet; elimination of extra corridors adjacent to gymnasiums; elimination of lockers and showers; elimination of libraries, and reduction in width of stairways.

—Milwaukee, Wis. An estimated total of \$7,480,000 for school buildings is called for under the present five-year school building program revised to 1930. Considerable progress has been made in carrying out the building program. Current building operations will total approximately \$2,650,000, and plans have been prepared for a new junior high and elementary school. To bring the program up to the five-year basis, the building committee has recommended the addition of the following items:

Completion of Lincoln high school, \$500,000; West Division addition, \$200,000; North Division high addition, \$250,000; South Division high addition, \$200,000; Twenty-seventh Avenue junior high wing, \$250,000; Girls' Trade School addition, \$200,000; Boys' Technical high auditorium, \$150,000; Morgandale unit, \$300,000; Johnson's Woods school, \$325,000. Total, \$2,375,000.

Of the \$5,675,000 still necessary to carry out the old building program, the committee estimates that \$600,000 worth of construction may be deferred in parts of the city where the growth has slackened, thus leaving \$5,075,000 of the program to be expended in the next five years. This, with \$2,375,000 for the fifth year program and \$30,000 for changes in original estimates, makes a total of \$7,480,000 for building purposes.

—School buildings in South Carolina are valued at almost \$26,000,000, according to figures prepared by P. W. Bethea, statistician, with the state board of education for the annual report of the state superintendent. The total value of buildings for the year ending June 30th, was \$25,995,788, or \$3,298,838 in excess of a

year ago, a percentage increase of about thirteen. Buildings used by white pupils were worth \$23,310,601, and those used by colored pupils, \$2,685,187. All school property was valued at \$31,528,639, or an increase of more than \$3,000,000 of the total value a year ago.

—Madison, Wis. The sum of \$200,000 has been added to the bond issue appropriation in the 1926 budget for the construction of a new school on an existing site.

—Boise, Ida. The board of education has begun plans for a ten-year, \$500,000 building program.

—Woodbury, N. J. Under a decision of the school board, the use of the high school auditorium and gymnasium will be limited strictly to school activities during the school year. The rooms have been given over to organizations giving plays, and the board has been embarrassed because of the number of requests for their use.

—Medford, Mass. Despite an extensive school building program which was recently completed, the board is faced with a shortage of accommodations and will be required to formulate another building program.

—Chicago, Ill. Rapid reduction of the seating shortage during the last two years is shown in a report recently submitted to Mayor Dever by President E. B. Ellicott of the board of education. Since the beginning of the present administration, the report reveals, the shortage has been reduced from 70,000 to 48,000 seats, despite an increase of 32,000 in enrollment. By the end of the year 1926 the shortage, with buildings under construction, will have been reduced to 30,000.

Between 1923 and November of this year, 25 schools have been begun, completed and occupied, with an additional seating capacity of 22,994. Construction of 28 schools, begun in 1925, will be completed in September, 1926, providing 31,194 more seats.

—Linden, N. J. The school board has approved an appropriation of approximately \$738,000 to cover a building program to take care of an expected increase in the next few years.

—Louisville, Ky. Provisions for financing the proposed high school building have been completed by the city council with the authoriza-

tion of \$50,000 in bonds. The bonds were approved in compliance with a petition of the board showing that the cost of the building would be \$325,000. It was found that the school city under the constitutional limit, can issue bonds to the amount of \$270,000, which with the \$50,000 given by the city, would bring the total up to \$320,000. School bonds maturing next year will take care of the remainder.

—Seattle, Wash. The school board does not contemplate a new building program for the year 1925-1926. Bonds already voted are expected to finance the program at present outlined, which will not be completed until late in 1926 or 1927. The buildings remaining to be completed on the present building program will accommodate 5,800 students but it is estimated that by the time these buildings are completed, the growth in school population will be approximately 6,000. Approximately 5,000 students are now housed in portables, and it is expected that fully 5,000 or 6,000 students will be in portables when the present program is completed.

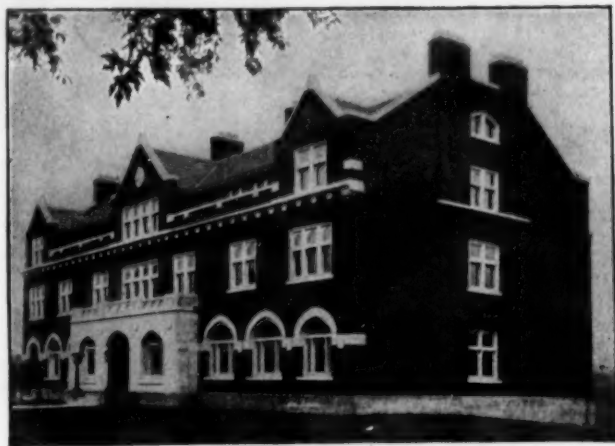
—San Bruno, Calif. The voters have approved a bond issue of \$42,000 for an addition to the Northbrae school and for a new school in Huntington Park.

—Alton, Ill. The school board has adopted a blast system of ventilation for the new \$500,000 high school.

—Pittsburg, Kans. The school board is working with the architect in preparing plans for the new building program for which \$450,000 in bonds were voted. The remainder of the \$750,000 program will be obtained through a tax levy.

—Madison, Wis. Insurance carried on school buildings has been increased from \$2,531,400 to \$3,062,600 by action of the school board. The amount covers 90 per cent of the total value of the buildings and 100 per cent of the contents. In the past the board carried policies covering 70 per cent of the value of the buildings.

—School buildings costing approximately \$1,200,000 were erected in Arkansas during the past year, according to figures made public by the State Education Department. The total is an increase of \$500,000 over the 1924 expendi-



Conservatory of Music, Northfield, Minn.
Sound-proofed with Cabot's Quilt.
Patton, Holmes & Flinn, Architects, Chicago.

Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

CABOT'S QUILT

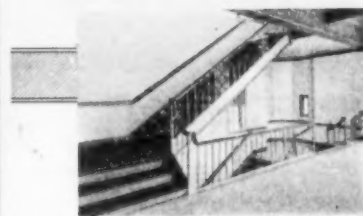
and the directors report the usual "perfect results."

Sound-proof, Decay-proof, Vermin-proof and Fire-resistant—the only material that meets all requirements.

Samples and full details on request.

Samuel Cabot, Inc., Mfg. Chemists, Boston, Mass.

342 Madison Ave., N. Y., 24 W. Kinzie St., Chicago.



BUILT OF SLATE—LASTS FOREVER!

Structural Slate is durable, sanitary, fire-proof, attractive, economical—factors of the greatest importance in installations such as Shower Stalls, Toilet Enclosures, Urinal Stalls and Table Tops. Actually Structural Slate outlasts the building.

STRUCTURAL SLATE CO.

108 Robinson Avenue,
PEN ARGYL, PA.

STRUCTURAL SLATE

ture for school buildings, and approximately \$400,000 in excess of the 1923 expenditure.

A new high school at Little Rock, two new buildings at the University of Arkansas, and a new building at the State Teachers' College, will be erected during 1926, the total for next year to exceed the \$2,500,000 mark.

—Bellingham, Wash. A five-mill tax levy for school purposes has been approved by the voters. The money will be used in erecting a new school to cost \$30,000 and in improvements to another school.

—Members of the board of education at Racine, Wis., recently visited newly erected high schools in Wisconsin and Michigan cities to study architectural and equipment features. The board will shortly approve plans for two new high schools.

—Lansing, Mich. The school board has entered into a contract for co-insurance to the value of 90 per cent of the school property, and to cover the next three years. Under the plan adopted, the board carries insurance at the 90 per cent rate, on a total valuation of \$1,512,915.

—Washington, D. C. Local civic leaders have protested the action of the Bureau of the Budget in cutting \$1,500,000 from the school building program. While the reduction in funds will not delay the actual construction for 1926, it is probable that the five-year program will be endangered because of the condition of the finances.

It is pointed out that if the full schedule of appropriations under the five-year program is not granted for the coming fiscal year, it will mean either that the program will be extended over a longer period of time, or that Congress will be asked for a much larger figure than \$4,000,000 for construction work in 1928.

—St. Louis, Mo. The school board has been asked to adopt an extensive building program at such a time as the finances of the board permit. It is pointed out that six schools are compelled to use portable buildings, while numerous others have inadequate accommodations and must use portable structures.

—Louisville, Ky. The citizens recently voted six to one in favor of an issue of \$5,000,000 in bonds for the public schools of the city.

—Houston, Tex. The total amount involved in the present building program is approximately \$7,000,000. The elementary building program will be started in 1926. The estimated total amount involved in schoolhouse construction now in progress is \$3,000,000.

—The feature of the dedication of the \$500,000 high school at Dunkirk, Pennsylvania, was an address by Dr. Thomas E. Finegan, former state superintendent. Superintendent Frederick R. Darling was also one of the speakers.

—Madison, Wis. The school board has asked for an appropriation of \$300,000 for 1926, this amount to be used for an elementary school, for a new south side site, and one for the Marquette school, also additional land and an addition for the Lowell school. Since September, 1920, the board has issued bonds for school purposes amounting to \$1,440,000. The main problem of the future will be to keep the building projects abreast of the increase in school population and to improve existing school facilities.

—Bloomington, Ill. The high school board has called an election to vote on a bond issue of \$193,000 for the erection of a high school.

—Indianapolis, Ind. The school board has been freed of court restraint by a recent decision of the Superior Court and will proceed at once with the closing of contracts for six new grade schools. In making its decision the court pointed out that the school board had acted with full deliberation and consideration in handling its building program and gave the public opportunity to be heard.

—New Britain, Conn. A million dollars' worth of school equipment was added to the school plant during the past year. Not only was the building program executed but plans were also made for two new buildings to be erected as soon as funds are available.

Two buildings now in process of construction are the Roosevelt and the Lincoln buildings replacing two old structures. The former will have a capacity of 600 pupils and will cost \$300,000 and the latter will have 1,225 students and will cost \$260,000.

—The North Dallas, Tex., high school has been renamed the Clinton F. Russell High School

in memory of the late Clinton F. Russell, formerly a member of the Dallas school board.

—Rockford, Ill. The high school board has adopted an appropriation schedule of \$2,262,000 for next year, of which \$970,000 is for building purposes.

—With a building program aggregating \$2,679,250, the school board of Columbus, O., must face the question of how to provide for recommended buildings, grounds, equipment and repair work with available funds of \$1,801,677.

—Boise, Ida. The school board has planned a ten-year building program looking toward the housing needs of the future.

—Aberdeen, Wash. The increase in census, enrollment and average daily attendance of the public schools is greater than in preceding years, and the present rate of increase requires approximately from four to six additional rooms each year, according to E. B. Crary, secretary in his annual report to the board of education. He points out that the bonded condition of the district is such that the large levy for bond redemption must be continued and should be increased in years to come because of new bond issues necessary for new buildings and amounts due for retirement.

Survey Experts Praise New Schools

—New York City's newest school buildings have recently been commended by the school survey experts retained by the board of education for a study of the school system. The reports show enthusiasm for the type of building erected and the varied activities provided.

While the survey was in progress the board reduced the height of elementary school buildings to four stories but at a great sacrifice of rooms. In a report to the school survey committee, William H. Gompert, superintendent of school buildings, pointed out that the department was at work upon plans for a lower building when the survey was begun and that the claims made for less stairways and travel distance and other economies were not borne out. It is the opinion of Mr. A. L. Weeks that the buildings may be compacted into four stories and still provide 66 classrooms as formerly.

Put beautiful pure melody into your school

A CHILD'S crying out "Oh, that star!" "Such white, white snow!" is an instinctive response to beauty and its mystery. His wonder opens to the things you can never teach by words. Yet through pure melody—tones rich and clear from the Victrola—you can put into the child-mind glows, rhythms, soft callings—exquisite pleasure for every listening moment.

For early morning, use such freshness as Schubert's *Hark! Hark! the Lark*. For joyous study—lyrics, old hunting songs; *Ave Maria* as Ellen sang it to the harp of Allen-Bane; emotional dramatic readings that include the veritable shouts of a Roman mob. Use folk-songs for phrasing. Beautiful rhythms for child-dances—simple to teach, yet who knows how far and priceless in result? For imagination—Saint-Saens' *The Swan*—lake-music so softly rippling you can tell when the white bird lifts its head! These bring the artists and artistry of the world into the silence of classrooms. Think of Schubert's *Allegro Moderato*, where the beauty of woodwinds summons the rustling of invisible forces to the listening minds of the children.

You will want to know how other schools are using the Victrola and Victor records to bring the beauty of pure melody to their pupils. Send for information—or at any store selling Victor products, ask to hear these records. As you listen, your mind will create abundant uses for them in classwork.

Allegro Moderato

Unfinished Symphony (Schubert)
PHILADELPHIA ORCHESTRA 6459

Ave Maria (Schubert) - - - - MARSH 55052

By the Waters of Minnetonka
(Cavanass—Lieurance) - - - - CHEMET 1015

Devotion (Mascagni)
MORMON TABERNACLE CHOIR 19829

Farewell to Cucullain (Londonderry Air)
FRITZ KREISLER—HUGO KREISLER 3017

Four Leaf Clover
(Brownell) - - - - - WILLIAMS 855

Hark! Hark! the Lark
(Schubert) - - - - - GLUCK 664

Liebestraum (Liszt) - - - - - SAMAROFF 6269

Lo, Here the Gentle Lark
(Bishop) - - - - - GLUCK 654

Minuet in G (Beethoven) - - - - POWELL 804

Morning—"Peer Gynt" (Grieg)
VICTOR CONCERT ORCHESTRA 35470

My Mother Bids Me Bind My Hair
(Haydn) - - - - - MARSH 45092

Negro Spiritual (Dvorák-Kreisler)

FRITZ KREISLER 1122

On Wings of Song
(Mendelssohn) - - - - - HEIFETZ 6152

Praeludium (Jarnfelt)
VICTOR CONCERT ORCHESTRA 18323

Salut d'Amour (Elgar) - - - - ZIMBALIST 890

Serenade (Till) - - - - NEAPOLITAN TRIO 16995

Slumber Boat
(Riley—Gaynor) - - - - LITTLEFIELD 18448

Solvejg's Cradle Song—"Peer Gynt"
(Grieg) - - - - - MARSH 45321

Songs My Mother Taught Me
(Dvorák) - - - - - FRITZ KREISLER 727

Souvenir (Drdla) - - - - FRITZ KREISLER 716

Swan, The (Saint-Saens) - - - - KINDLER 45096

To a Wild Rose
(MacDowell) - - - - VENETIAN TRIO 18208

Waltz in E Flat (Durand) - - - - BAUER 6508

Waltz in G Flat Major
(Chopin) - - - - - MOISEVITCH 55156

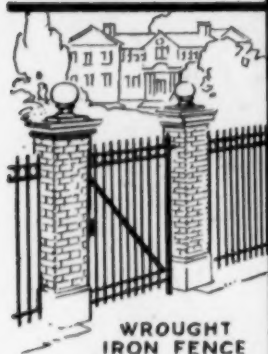
The Educational Department

VICTOR TALKING MACHINE CO.



CAMDEN, NEW JERSEY, U. S. A.

SCHOOL



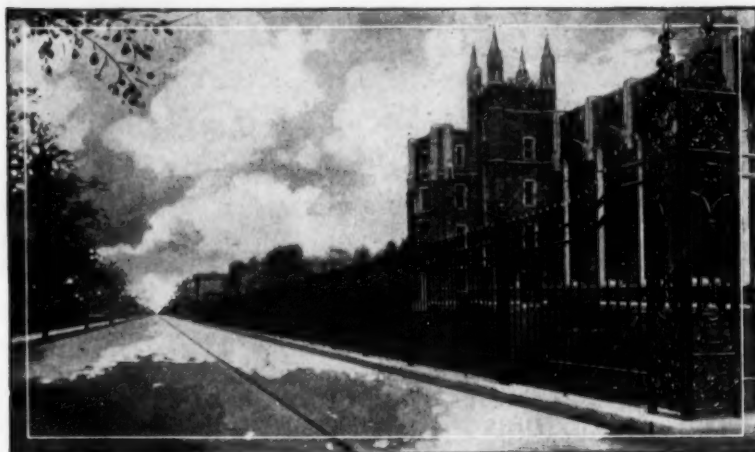
Stewart's
FENCES
STANDARD OF THE WORLD



PLAYGROUND

WROUGHT IRON FENCE

for Dignity—Beauty—Permanence



Wrought Iron Fence on the grounds of Fordham University, New York.

THE importance of your School in the community warrants the enclosure of its grounds with Wrought Iron Fence—and the dignity of that type of fence emphasizes the School's value to the community.

Our Wrought Iron Fence Designs are many in number—varying from the simple picket railing, to designs for the most elaborate installation. These fences are made in a shop in which master craftsmen have wrought for two generations—made to

standards of quality nowhere excelled. The expertness of that building does not, however, imply correspondingly high prices. Our Wrought Iron Fences can be chosen to come within the bounds of a modest appropriation.

The Gates are equally important, and the choice is equally comprehensive. Let us send you our Catalog—its illustrated pages are full of suggestions. Estimates cheerfully furnished.

We also make Chain Link Wire Fence for School Grounds and Athletic Fields. "Chain Link Catalog" on request.

The Stewart Iron Works Company
(Incorporated)

420 Stewart Block, Cincinnati, Ohio

American Fence Construction Co.
(Incorporated)

128 West 34th Street, New York, N. Y.

Agents and Representatives in all Principal Cities

FENCES

Afco
FENCES
PRODUCT PLUS SERVICE



ENCLOSURES

SCHOOL FINANCE AND TAXATION

SCHOOL TAX ILLS LAID TO VALUATION

Responding to a request of Governor Smith's commission on school finances for suggestions by citizens of New York State, Dr. William H. Allen, director of the Institute for Public Service, recently proposed that "before urging evasion of constitutional limitations upon local taxes via higher state taxes for education, the commission first advertise the truth about under assessments in up-state cities."

Figures were given in refutation of the declaration of Dr. Frank P. Graves, state commissioner of education, that "in nearly all cities with a population of 100,000 or more the constitutional limit on city tax rates has been found to prevent the support of the public schools in accordance with standards prescribed by the New York State Legislature."

Dr. Allen points out that the state tax commission holds that every county outside of New York City, is under assessing its property for taxation from fourteen to 85 per cent. It is found that serious under assessment is the rule—32 per cent in Utica, 30 per cent in Buffalo and Syracuse, 26 per cent in Rochester, 21 per cent in Albany, 13 per cent in Yonkers, 40 per cent in Jamestown and Amsterdam, 30 per cent in Auburn, 25 per cent in Binghamton, 20 per cent in Poughkeepsie, Elmira and Newburgh—seventeen per cent on an average throughout the state, including 92.5 per cent credited to the city of New York.

Dr. Allen declares it does not follow, as Dr. Graves recently maintained, that if the educational standards of the state are to be met, there must be in such cities a substantial increase in the amount of money apportioned by the state. On the contrary, he holds that calling deliberate under assessment an emergency justifying getting around the constitution is not only bad finance but miseducation. If New York City must be taxed more for schools, it should

be first for its own schools and not for up-state cities which persist in grossly under assessing themselves.

SCHOOL FINANCE IN OREGON

An exhaustive study of the school finances of Oregon has been completed by Prof. Homer P. Rainey of the University of Oregon.

In 1900, Oregon spent \$1,728,224 for education. In 1924, the amount had risen to \$19,119,271. During the five-year period from 1919 to 1924 the expenditure was doubled.

Prof. Rainey proceeds to analyze the taxable wealth of the state, and concludes that the state will face quite a problem in financing her program of education. He asserts that there are indications that a limit has been reached and that retrenchments are in progress.

The investigator finally says: "If Oregon must have increased revenues for schools it must also reform its taxing system. The system of taxation on real property is filled with inequalities and unfairness. A large part of the wealth of the state is contributing nothing to the support of education. A great deal may be gained from the experiences of other states in this matter. In general the most progressive states are resorting mainly to three or four forms of taxation. These are (1) the income tax, (2) tax on business, (3) inheritance tax, and (4) severance tax."

Prof. Rainey recommends the appointment of a legislative commission that shall make a thorough study not only of the question of school support, but also of the subject of taxation with a view of securing greater equity and a better revenue.

COST OF INSTRUCTION IN NORTH CAROLINA ELEMENTARY SCHOOLS

The data gathered on the subject of cost of instruction in elementary schools is taken from the budget reports of the county and city boards of education in North Carolina and is figured on the basis of teachers' salaries and without regard to other items of expenditure. It was compiled and published by the State Department of Public Instruction of North Carolina.

It is brought out that in all city schools in 1924-1925, the daily per child cost of instruction was 21.3 cents, while the rural cost was 17.3

cents. In other words, each city child had four cents more spent each day last year for his instruction than the rural child had. The cost of teaching the average city child was 23 per cent higher than the cost of teaching the rural child.

The factor which determined the higher cost in the city schools was the higher average salary. The average monthly salary in the rural schools was \$87.03, while in the city schools it was \$127.37, which is a 42 per cent higher salary. However, as the city schools had more children per teacher, the city per child cost was but 23 per cent higher.

The cost of instruction in all elementary schools of the state in 1923-1924 was 18.1 cents per child per day, while in 1923-1924 it was 18.2 cents. This shows that the cost of teaching increased but .1 of one per cent in all schools, rural and city together. In the rural schools for the same period, the increase was from 17.2 cents in 1923-1924 to 17.3 cents in 1924-1925. In the city schools the cost increased from 21.1 cents in 1923-1924 to 21.3 cents in 1924-1925.

Among the 34 largest city systems, Winston-Salem had the highest daily cost of instruction per child in the elementary schools in 1924-1925. Winston-Salem's cost was 28.5 cents. This was almost twice as great as the lowest cost, 14.4 cents, which was found in Mooresville. The difference is due to the fact that Mooresville paid \$34.46 less average salary for teaching thirteen more children.

Among the eight largest cities, Winston-Salem had the highest cost, 28.5 cents per child per day, and High Point had the lowest cost, 19.6 cents. High Point had a better percentage of daily attendance, but she paid \$16.19 less monthly salary, and for this salary secured the instruction of 7.2 more children per teacher.

Among the ten cities of Group II, Salisbury had the highest daily cost of instruction. This cost in Salisbury was 26.6 cents per child per day. The lower cost in this group, 17.9, was found in New Bern. The difference may be ascribed to the fact that Salisbury had 7.4 fewer children per teacher and paid \$15.97 higher monthly salaries.

(Continued on Page 95)



THE **FUN FUL** LINE PLAYGROUND EQUIPMENT

FUN-FUL Playground Equipment is the result of experience, a quarter of a century devoted exclusively to the development and manufacture of children's outdoor health building goods by this Company. The best you can buy, this we guarantee.

We offer the most comprehensive line to select from, nothing but approved and guaranteed apparatus.

Sold by the leading school supply houses throughout the United States, Canada and Mexico.

Largest manufacturers of Playground Equipment

Awarded Gold Medal Brazilian Centennial Exposition, 1923

HILL-STANDARD Co.

ANDERSON

Established 1900

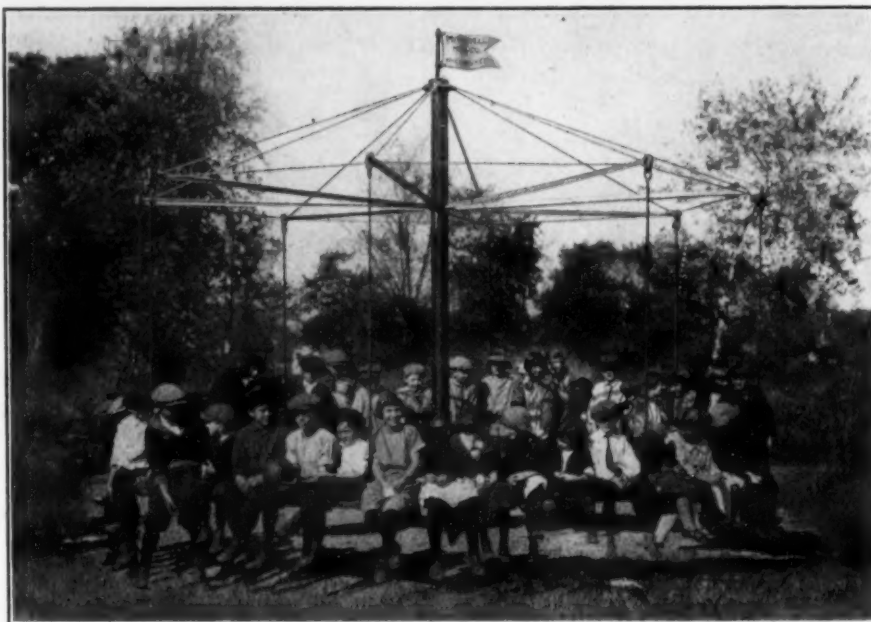
INDIANA, U. S. A.

MITCHELL

"BETTERBILT" PLAYGROUND APPARATUS

The
MITCHELL
BETTERBILT
LINE

of
Merry Whirls
Swing a Rounds
Swing Bobs
Pede Swings
Settee Swings
Teeter-Totters
Slides
Water Slides
Frame Swings
Combination Outfits
Kiddie Whirls
Porch Swings
Lawn Swings
Horizontal Ladders
Etc., Etc.



The
MITCHELL
MERRY WHIRL

accommodates
1 or 50
children at a
time and gives
them the best of
exercise all the
year around.
Safe, strong and
neat in appearance.

Recommended by
buyers of
Playground
Equipment.

Send for Catalogue
No. 11.

MITCHELL MANUFACTURING COMPANY
1801 FOREST HOME AVE. MILWAUKEE, WIS.

(Continued from Page 94)

Reidsville, in Group III, had the highest elementary instruction cost. In this city it cost 25.3 cents per child each day to teach the elementary white children. The cost in Mooresville was remarkably decreased below the 1923-1924 cost. This cost in Mooresville was remarkably increased below the 1923-1924 cost.

In 1922-1923 the cost of instructing the city elementary child was 20.5 cents. The cost the next year was 21.1 cents, or 2.9 per cent higher, and in 1924-1925 the cost had increased one per cent. The total increase in cost of instruction in the city schools increased by 3.9 per cent.

In the state as a whole, the daily elementary cost of instruction for each school child was 18.2 cents, as compared with a high school cost of 41.8 cents. It cost 23.6 cents, or 129 per cent more to teach each high school child. This higher high school cost is due to the fact that the average high school salary was \$60.26, or 63 per cent larger than the elementary salary, and the average high school teacher had 7.6, or 40.8 per cent, fewer children in average daily attendance.

The city high school cost was 90 per cent higher than the city elementary school cost. This difference also is attributable to the fact that the average city high school teacher had 9.5, or 46.5 per cent, fewer pupils than the city elementary teacher to instruct, and the further fact that the average city high school teacher's salary was \$36.91, or 28.9 per cent larger than the city elementary teacher's salary.

SCHOOL FINANCE AND TAXATION

—The school board of the Ferndale-Pleasant Ridge school district No. 9, near Royal Oak, Mich., rejected all bids for \$61,000 worth of bonds believing that the brokers were in collusion with each other.

—Tax sources and their relation to education will become a subject of study by the Association of Women High School Teachers of New York City.

—Ashland, Kentucky, as a third-class city, was permitted under the state law to levy a tax of \$1 on each \$100 assessed valuation for school purposes. This gave the city ample sup-

port. With an increased population it recently went into the second class of cities that can only raise 75 cents on \$100 valuation. Relief at the hands of the legislature will be sought.

—The community school savings bank of East Hartford, Connecticut, issued a report which shows that 1,944 pupils had saved \$8,763.78 during the year.

—Providence, R. I. The city board of aldermen has transferred to the school committee the control of the unexpended appropriations for public school sites and for health work in the schools. Previously, the former appropriation was expended for repairs in school buildings under the supervision of the commissioner of public buildings and of the city property committee.

—Mr. John Reardon, secretary of the board of education at Waukegan, Ill., recently gave a talk before a local club, in which he spoke of the progress of education, comparing the present expenses with the costs in years past. Among other things, Mr. Reardon shows that in ten years the enrollment of the high school had increased nearly four-fold. The tax levy has also increased more than six times, from \$43,400 in 1914 to \$324,000 in 1924. The number of teachers has increased from eighteen in 1914-1915 to 64 in 1924-1925, and the number of high school graduates has increased from 54 in 1915 to 152 in 1925. The amount expended for all purposes in 1924-1925 was \$356,186. The instructional service cost \$157,208 and the night school work cost \$4,915. The average cost per pupil in 1924-1925 is estimated at \$160 for the high school.

—Lima, O. Facing a demand for rigid economy in meeting school needs for the balance of the year, the school board has removed the names of thirty janitors and four clerks from the pay roll. In addition to the reduction in janitorial expenses, the board has given 280 teachers a three weeks' vacation without pay. Efforts will be made to reduce the fuel expense during the vacation period, instructions having been issued to keep just enough heat in the buildings to protect the furniture and water pipes. The economy measures will be in effect indefinitely until sufficient funds are available to operate on the old basis.

School officers maintain that the mandamus proceedings instituted by the city against the

county have delayed the collection of taxes and the disbursement of funds to the various budgets. Were it not for this difficulty, the school board would be able to levy for approximately \$165,000 and the schools could resume immediately following the second semester.

—Lansing, Mich. The board of education has borrowed \$45,000 from the local banks to carry the schools through the remainder of the scholastic year. The amount will be levied on the property of the district.

—Mr. John Wynkoop, financial secretary of the board of education at Bridgeport, Conn., has been appointed director of maintenance and operation of school property. In his new position, Mr. Wynkoop will be responsible for the direction of the department and the superintendent of maintenance will be directly responsible to the director for the maintenance, repairs, and alterations to school property. All expenditures for labor and material involved in repairs to buildings must be submitted to the director before the work may be begun.

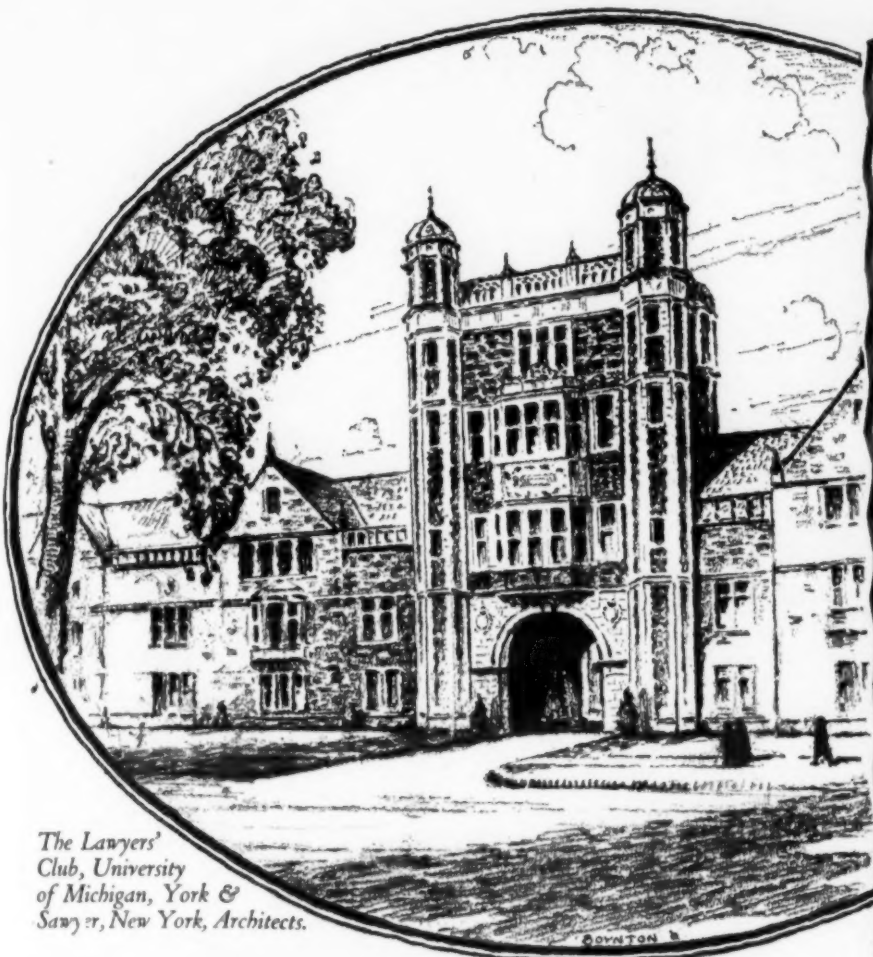
—Joliet, Ill. The financial stringency of the schools has been relieved through an agreement by local bankers to advance approximately \$112,000 to meet pay rolls for teachers until the 1925 tax money is available. Rigid economy is being practiced by every member of the city school board in attempting to keep within the revenue available. A considerable saving has been effected with the curtailment of kindergartens and a reduction in the number of janitors.

—Appleton, Wis. The board has obtained a loan of \$27,000 to operate the schools until February first. Of the amount, \$12,000 will be used for the junior high schools and \$15,000 for the senior high school.

—Meriden, Conn. The school board has prepared a budget calling for an appropriation of \$569,035, which is an increase of \$46,489 over last year.

—New Jersey expended \$70,598,127 in the operation of its schools during the year 1924-1925. Of this amount, \$53,246,543 represented current expenses as defined by statute, and \$17,251,584 the cost of repairs and replacements in buildings, manual training, vocational educa-

(Continued on Page 99)



The Lawyers'
Club, University
of Michigan, York &
Sawyer, New York, Architects.

MILCOR

MILCOR means Firesafeness

YEARS ago it was difficult, if not actually impossible, to make schools firesafe. And it was extremely expensive.

But not so today! Milcor Metal Lath, as a base for plastered walls and ceilings, solves the problem of interior firesafeness. And Milcor Metal Roofing eliminates the greatest external fire hazards.

Plastering on metal lath is not only firesafe, but crackproof. Never any chance of ceilings cracking and dropping off, endangering the lives of pupils and teachers, when Milcor Metal Lath forms the base.

Wall corners, too, can be made permanently crackproof with Milcor Expansion Corner Beads. Other Milcor Products—Expansion Metal Casings, for instance—by eliminating costly, impractical woodwork, permit big savings in first cost as well as lower maintenance cost.

You owe it to the children and to the tax-payers to investigate the Milcor Line. Every School Board member should get posted on the data embodied in "The Milcor Manual" and "The Milcor Guide". Copies of these interesting books gladly sent on request.

MILWAUKEE CORRUGATING
COMPANY

MILWAUKEE WISCONSIN

Chicago, Ill., Kansas City, Mo., La Crosse, Wis.

(Continued from Page 96)

tion, evening schools and interest and principal on outstanding indebtedness. The current expenses showed an increase of \$5,953,945 over the school year 1923-1924 and \$10,000,000 over 1920-1921.

—Bellingham, Wash. Pointing to the growing needs of the school district and to a possible deficit of \$12,000, the school board has submitted to the voters the proposition of a two-mill levy to provide for anticipated deficits this year and for the school year beginning next September. It is pointed out that during the last three years the expenditures for practically all purposes, except instruction, have been reduced each year, and that the assessed valuation of the district, with the maximum tax levy allowed by law, has not been sufficient to keep pace with the growth of the schools.

—Supt. J. H. Risley of Pueblo, Colo., in a recent address before the parent-teacher association, pointed out that the citizens spend \$750,000 a year on movies, nearly \$1,000,000 on candies and sodas, and nearly \$1,250,000 on oil and gas for automobiles. In the face of these growing expenditures for things that minister to the pleasure of the people, he protested against any decrease in the educational investment.

Speaking on the subject, "School Costs and School Efficiency," Supt. Risley argued that people who criticize school costs in Pueblo and in general, are those who have given little study to the growth of the schools and to the rapid expansion of the school program to better serve the community. He showed that there are now about six hundred more pupils enrolled than there were in November, 1921, and about two hundred of the increase is in the high school. The cost of instruction per pupil in the high school is \$112 a year, and the cost in the grades is \$55 a year. The actual cost of instruction last year was about \$50,000 more than in 1921-1922, so that most of the increase is accounted for by the one item of increased attendance. For the present the schools are costing as little as the present service could possibly cost.

—Bellingham, Wash. In December, the voters of the city were asked to approve an additional five mills to raise approximately \$80,000 for the erection of a new school and to improve the facilities of the Washington school.

—Everett, Wash. The school board has asked the voters to approve a levy of five mills, in addition to eleven mills, which is the legal limit. The additional money is needed to provide \$15,000 for the completion of the south side junior high school, and \$50,000 for warrant indebtedness.

—Financial independence for the New York City board of education as a step toward establishing adequate salaries for teachers in the schools has been recommended to the governor's school finance commission by the federation of teachers' associations. Three years ago the Federation sponsored in the legislature a measure known as the cities' school bill, which provided for raising a state school tax in each city school district, and last year it introduced the unpopular Downing-Phelps bill, which would have given the board of education financial independence in salary matters. The opposition to the bill by the teachers was principally because it provided no definite schedules and also because there was some misapprehension about its protective features.

The advisory council of the association has voted to ask the board of directors to reintroduce the Kamerer bill establishing an \$800 minimum pension for teachers retired before the present pension law was enacted in 1917. There are at present five men and 586 women on the pension roll who were retired previous to 1917 and who are receiving less than \$800 a year.

—The school authorities of Lima, O., face a serious situation in attempting to meet a lack of funds. Attorney General Crabbe, in a recent ruling, points out that teachers, janitors, and school bus drivers, who work without pay in the hope of being reimbursed after the tax collections are received, will be disappointed. Tax money, it is pointed out, cannot be used to pay such claims and all claims for salaries will have to be reduced to judgments against the district.

In the same opinion, the attorney general holds that county boards of education may come to the rescue of districts under them, where they are financially embarrassed. They may obtain a loan from the county general funds, provided there is money in the fund and the commissioners are willing to advance the money.

At the present time the only relief open to the school board in reopening the schools appears to

be a loan in anticipation of the tax collection not in excess of the total anticipated taxes.

—Distribution of \$3,500,000 to school districts of Wisconsin from the common school fund has been reported by State Supt. John Callahan. The exact amount which the schools received from the fund for 1925 was \$3,472,990.

—Detroit, Mich. The city schools will cost approximately \$21,000,000 during 1926-1927, according to a summary recently submitted by Supt. Frank Cody. Estimated costs of maintaining the school system will be \$15,062,111. In addition, approximately \$6,000,000 will be used for construction work in Detroit and annexed territory. The figures are based on the estimated school population for 1925-1926 and added facilities needed to care for children now on half-day sessions.

—Lima, O. The board of education has won the first point in the tax suit of the city against the county budget commission. The city has waived its right to the certification of the four-teen-mill levy being part of the 2.20 mill levy which the board had asked the court to certify to itself. The levy will yield about \$31,000.

—El Paso, Tex. The school board has increased the school budget by \$25,000 to meet an increase in school attendance.

—Bridgeport, Conn. The school board has adopted a budget of \$2,044,174, as compared with the last budget allowance of \$1,972,999. The operating account shows an increase of \$2,950 and that for maintenance is given \$4,500 less than last year. Overhead expenses are estimated at \$28,675, a decrease of \$88.

—The poor financial condition of the schools of Ohio has been greatly exaggerated according to State Supt. V. M. Riegel. Speaking of the condition in Miami County, it was pointed out that in all districts, except Newton, the schools are in good condition, and that Newton will get through if sufficient state aid is given.

There are eight one-room schools in Williams County which have been closed because of lack of funds, but these schools are among the most inefficient type in the state. In Van Wert County, it is pointed out, there are fourteen one-room schools which have been ordered closed, but the people have attempted to raise funds to keep the schools open. There are less than a

The Acid Test proves ~ DURIRON Acid Proof

At the 1925 Architectural and Hospital Expositions, the National Plumbers' Convention, and other places, The Duriron Company's exhibit consisted of an arrangement similar to the one here shown.

A glass jar of Nitric Acid (10% strength) was allowed to drip through troughs of the materials listed, and the results were those shown in the drawing.

This acid test leaves nothing to the imagination or to speculation. It gives the actual results of the effect of acid on pipe materials.

Duriron drain pipe is installed the same, as easily, and interchangeably with extra heavy cast iron soil pipe.

It is a solid cast alloy. Is not coated, lined or treated. Is guaranteed, and does not need the guarantee.

Duriron is produced only by
The DURIRON COMPANY
DAYTON - OHIO

dozen districts in the state which expect financial trouble leading to a shortening of the school term.

It is held that where the schools are the best, and where they cost the most, they are being adequately financed, because of the school sentiment that provides good schools and money to maintain them.

—Cincinnati, O. The present cost of equipping rooms in the primary grades with chairs, tables, and bookcases ranges from \$5.33 per child to \$6.35. Previously the cost per pupil has been \$8.85 when pedestal chairs were used and \$9.50 when the equipment included movable chairs.

—Roanoke, Va. An ordinance providing that the city supplement the 1925 appropriation for schools by an amount equal to the deficit in the school accounts for the year has been proposed by the city council. From present indications, it is expected that the deficit in the school fund will be much smaller than originally estimated. Members of the board estimate the deficit to be in the neighborhood of \$8,000, instead of \$22,000 as forecasted some time ago.

—Rockford, Ill. The school budget adopted by the board of education for 1926 calls for an expenditure of \$2,262,262. Of this amount, \$1,291,595 will be used for educational purposes and the remainder for school buildings.

—The Lima, Ohio, schools could not be opened on the first of the year for want of funds. In former years, the board conducted the schools during the months of December and January in anticipation of the money to be received. This year the board comes under the new law which provides that a pay-as-you-go plan must be followed. The board of education opened a school relief fund whereby the sum of \$12,500 to run the schools for one month was secured. The board was importuned to exact a tuition fee of ten cents per pupil per day but declined to enter upon this plan.

—Philadelphia, Pa. The school board has adopted a tax levy of nine and one-half mills upon each dollar of the assessed valuation, which will yield a total of \$27,938,360.

—The educational department of Wisconsin will distribute \$3,472,990.77 to the schools of the

state. The apportionment is made by counties, the lowest, Florence county, receiving \$5,862, and the highest, Milwaukee county, receiving \$733,124. The apportionment is made on the basis of \$4 for each of the 869,546 school children in the state. Of the \$4, \$3.67 comes from the seven-tenths mill tax on property provided for the purpose, and 33 cents comes from the school fund income. Although \$3,478,184 was available for distribution, \$5,193 was deducted on account of the 1,403 children in delinquent districts.

—In answer to the statement that the Georgia people will not vote school bonds, the official magazine of the Georgia Education Association contends that attempts in that direction will at least inform the people on the school needs of the state. In opposing the pay-as-you-go policy the publication says: "No business concern can possibly progress without borrowing on its future and developing the assets with which to pay the debt. It now requires all the available funds on a pay-as-you-go basis simply to meet maintenance expenses. Under a bonding system the generation which has secured better educational facilities through the expenditure of bond money will be more capable of funding the debt. We are too poor today to build a great university system, but the graduates of that system in the future will increase ten-fold the present wealth of the state. All progressive states have advanced by bonding themselves for schools."

—"Chicago has had school board régimes that emphasized building programs, penny lunches, politics, fights with parents, fights with teachers, and fights between the members of the board. Some of these things were good for the welfare of the children. Most of them have been very far from good," says the Chicago Tribune. "At last it seems as though Chicago had a superintendent of schools in Mr. McAndrew who puts the education of the children first, and hangs every other thing on this one fundamental requisite. The board and the teachers, parents and politicians, have not been allowed to stand in the way of Mr. McAndrew's aims. He is refreshingly hard-boiled enough, thick-skinned enough, to brush interference aside and keep on hewing to the line."

DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS WILL HOLD MEETING

The Department of Elementary School Principals of the National Education Association will hold its annual meeting at Washington, D. C., during the week of February 21st.

MR. RICE SUCCEEDS GROUT AT PORTLAND

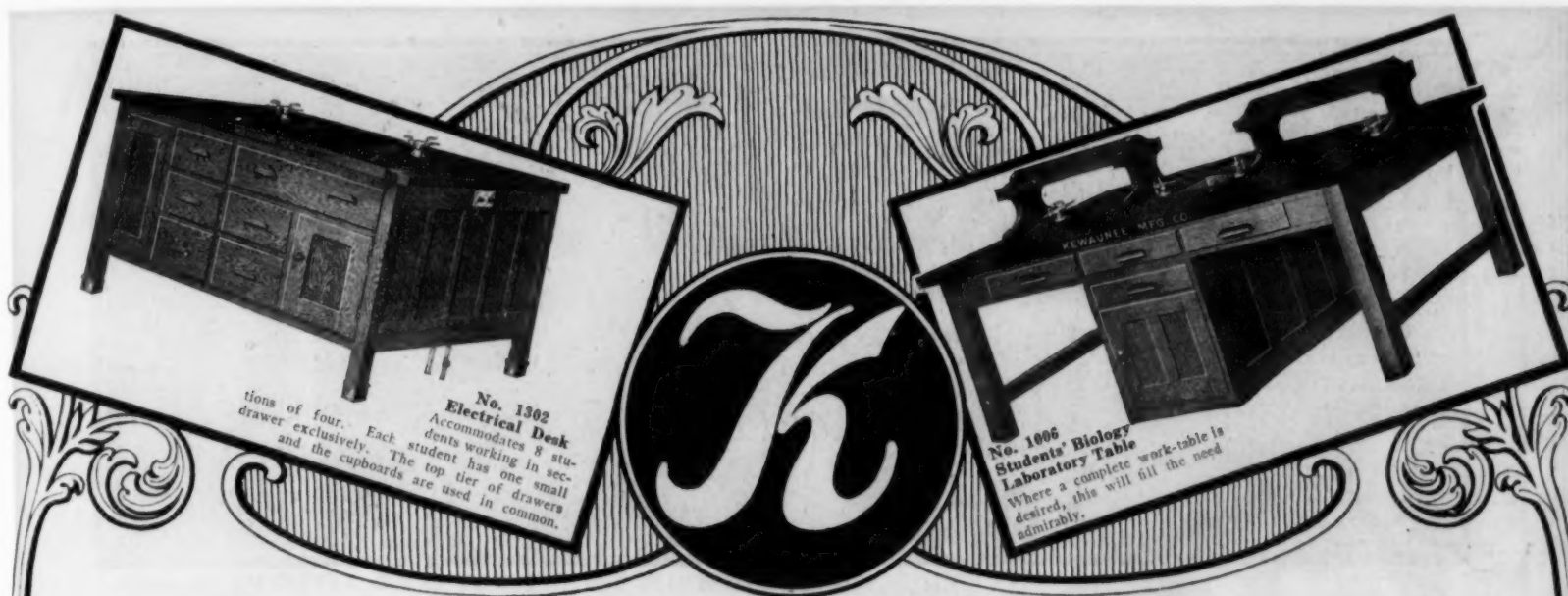
Mr. C. A. Rice has been appointed superintendent of schools at Portland, Ore., to succeed Mr. D. A. Grout, who has resigned because of ill health. The appointment is for the period ending June 30, 1929.

Mr. Rice came to Portland from Monmouth, in September, 1907. He has a service record of eighteen years, having filled the position of principal in the elementary schools, and later becoming assistant superintendent, a position to which he was appointed seven years ago. In July, of last year, he was appointed acting superintendent due to the illness of the superintendent.

Mr. Rice was born in Illinois and obtained his education at the Wesleyan University at Bloomington; the University of Chicago, and the University of Oregon. He taught for eight years at Normal, Illinois, and later was made principal of the high school. His bachelor's degree was obtained at Wesleyan University and his preparation for the master's degree was begun in the University of Chicago and completed in the University of Oregon. In 1903, upon receiving his master's degree, he was made principal of the training department of the Oregon Normal School at Monmouth, which position he resigned to go to Portland.

Mr. Grout was elected superintendent of schools in July, 1918, to succeed L. R. Alderman. Previous to his appointment as superintendent, he had served as principal of the high school, and as principal of several grade schools. He was graduated from the Elgin, Ont., Model Training School for Teachers and from the University of Oregon Law School.

Mr. Grout had completed 34 years of service as instructor, principal and superintendent, and had faithfully and efficiently fulfilled the varied and responsible tasks allotted him. The board adopted resolutions expressing regret that illness necessitated Mr. Grout's resignation and extending best wishes for a return to previous health and strength.



Even as the Old Masters Made Furniture

Kewaunee Laboratory Furniture is made as the Old Masters made furniture—to endure unimpaired for generations.

While we have developed, through the years, a business that bears the distinction of being the largest in the country in the manufacture of exclusively high grade Laboratory Furniture, our ideals have never been sacrificed, and Kewaunee is famous today, on account of the excellence of its product.

Even though we say so ourselves—we know how to work with hard woods.

We know what woods we can depend on, we know what we can do with them, and what you can expect of them after they have been put into furniture for your work. And the woods we work with do not disappoint us.

We know how to season those woods, how to handle them and finally how to put them together to make Laboratory Furniture on which we are safe in putting the Kewaunee name and guarantee.

There's more to Kewaunee Laboratory Furniture than good woods properly handled—there's a lot of other details you ought to know about. They are included in the Kewaunee Book—the greatest authority on Laboratory Furniture ever published—besides illustrations (many of them in natural colors) of 500 or more desks, etc. A copy will be sent to any school executive without charge.

SEE US AT WASHINGTON

We shall be present at the Convention of the Department of Superintendence of the N. E. A. at Washington, D. C., Feb. 21-26, with a complete exhibit of Laboratory Furniture for your inspection. We cordially invite you to visit us.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

C. G. Campbell, Treas. and Gen. Mgr.

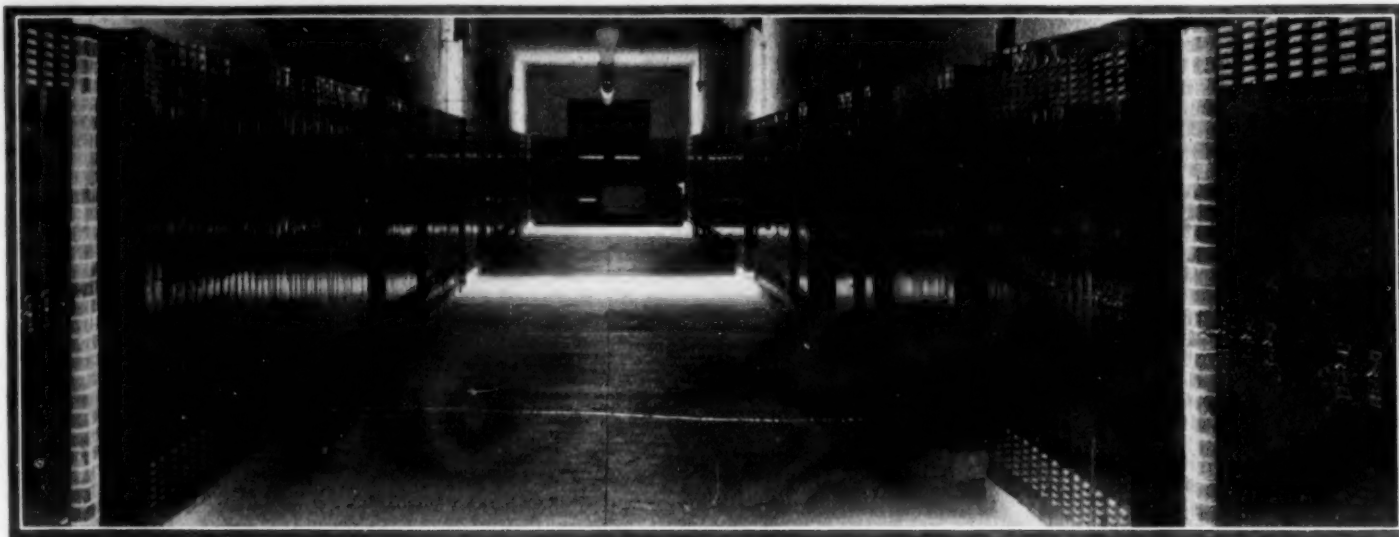
101 Lincoln St., Kewaunee, Wis.

New York Office: 70 Fifth Avenue

BRANCH OFFICES

Chicago Minneapolis Kansas City Houston Little Rock Denver Omaha Columbus Spokane
Oklahoma City San Francisco Los Angeles Jackson, Miss. Baton Rouge Phoenix
Philadelphia Greensboro, N. C. Albuquerque Salt Lake City





Meeting Every Installation Requirement

Schools everywhere are facing the same problem, that of getting greater capacity from present equipment. To meet this difficulty it is essential that all available space be utilized.

Berloy Steel Lockers are helping to solve this problem in hundreds of schools the country over. Readily adaptable to any limitation of space, Berloy Lockers can be arranged compactly to relieve congestion in rooms that are used for clothes storage.

Installed along corridor walls, Berloy Lockers make it possible to utilize the clothes storage rooms for the accommodation of more class room work.

Schools are now being built with recessed corridor walls, to accommodate Berloy Lockers. But whether your problem is a new or old building, Berloy Engineers can greatly assist you in planning the installation that will the most efficiently meet your requirements.

Write for catalog.

THE BERGER MANUFACTURING COMPANY, CANTON, OHIO.



Boston New York Philadelphia Chicago St. Louis Kansas City
San Francisco Los Angeles Minneapolis Dallas Roanoke Jacksonville

BERLOY STEEL LOCKERS



Drives Barred from Schools

—Dr. Frank P. Graves, state commissioner of education of New York, has come out against permitting financial drives in the schools of the state. "This step," he said, "was not taken through opposition to any of the projects for which funds were sought from the school children. It was recognized that most of the objects were worthy and that there was every desire to see that they were furthered. Collectively, however, the sums requested and secured by pressure were exceedingly large, and it was felt that methods of securing them voluntarily should be devised by the sponsors. The main reason for this exploitation of the school children seemed to be that numerous agencies found it a facile and convenient way of financing their particular interests.

"Each project seemed small in itself, but the sum total of the various objects was somewhat appalling. Not less than fifty or sixty such requests have been made within a comparatively brief period of time, and the purses of the parents can not stand such a continual drain, small though each amount may be. It is to be hoped that the suggestion of further collections among school children will soon cease."

SCHOOL ADMINISTRATION

—It is claimed that the Chicago schools lead in the use of motion pictures. The school system owns 1140 sets of film and 109,495 lantern slides. In October, 1925, the circulation of these slides was 61,624, as compared with 47,347 in 1924 and 39,300 in 1923.

—That education has been and still is a past-master in failures was the contention of Dr. H. E. Bruner of Columbia University in a speech made at Boise, Idaho, recently. He asserted

that the reason for this is that the individuality of the student is not developed in the grades as it should be and he is not permitted to apply himself, educationally, to the subjects that are best for him and in which he can develop rapidly. Instead of that, he pointed out, the subjects are made mandatory and the student who cannot apply himself or who cannot master them starts out as a failure and finishes as a failure when it would have been just as easy to make him a success.

—"No general statewide distribution of school funds can be made that entirely eliminates inequalities, because of the varied topography of our state with abandoned farm districts, dry land areas, large timber regions, federal reserves, mountainous and undeveloped sections, depopulated districts, as well as the island counties of Puget sound," said Josephine Preston, state superintendent of Washington, in a public address recently. "Some special plan is

necessary in addition to regular local county and state support of our schools to give certain sparsely settled and needy sections financial assistance. I have long pointed out that inequalities can be corrected only through the provisions of an equalizing fund. Such a measure is now pending before the special session of the legislature."

—The state board of education of Idaho is encouraging the formation of classes for handicapped children. The cost of educating a special pupil, it is found, ranges from \$100 to \$143, or an average of approximately \$115 per year. The cost of a regular grade student ranges from \$70 to \$100, with an average of \$84 per year. So great is the demand for trained special class teachers that the school of education of the state university offers summer courses to meet the requirements of the board of education.

(Continued on Page 104)

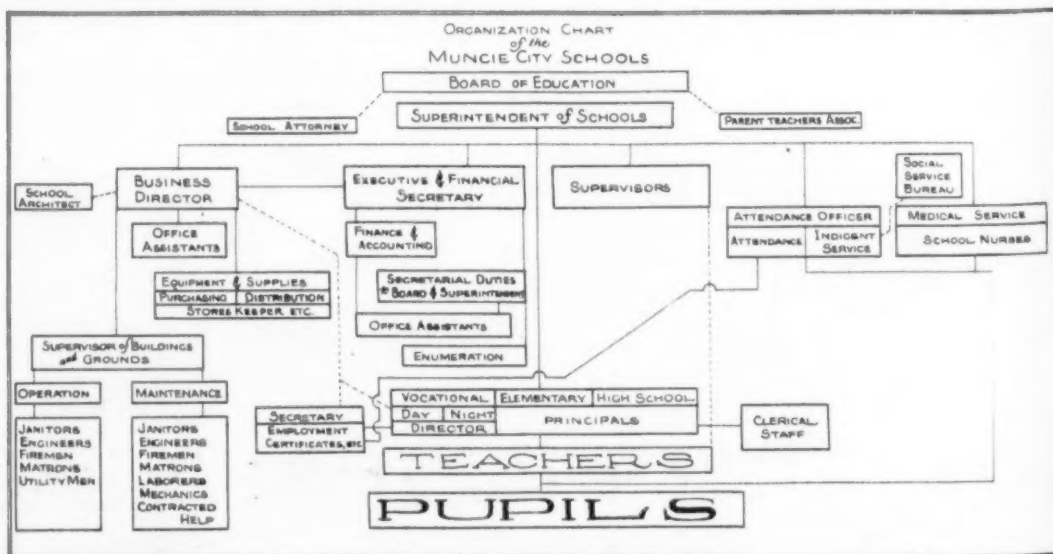


CHART ILLUSTRATING THE ADMINISTRATIVE ORGANIZATION OF THE MUNCIE, IND., CITY SCHOOLS. Prepared by Mr. L. S. Martin.

AND NOW... A SUPER-BINDING

on COMPTON'S PICTURED ENCYCLOPEDIA

Triples the Life of Every Set

THIS new binding keeps each volume firm and sound. A binding built specially to make this most *useful* encyclopedia equally *usable*. A binding to meet the pressure of constant employment of Compton's Pictured Encyclopedia in the schoolroom, and to preserve each volume for students and teachers who follow in later years. A super-binding that triples the life of Compton's in classroom and school library.

Compton Duro-Bound

This new special school binding for Compton's is a strain-sustaining and tear-proof binding that challenges the severest of tests and will meet the most exacting requirements. Crack it over your knee. Bend it until both covers meet. Place a two hundred pound man on each side and stage a tug of war. Then examine it. Not a page disturbed, not a thread broken. Here is a binding made to order for continuous and permanent school and library use.

Newly Patented Machinery Makes Possible Compton Duro-Bound

This new binding accomplishment called for specially designed and patented machinery. The sewing, instead of by signature, is entirely through each and every page. Extra heavy, strong, linen threads doubled are run through each page in eleven different places and locked in such a manner as to make each thread a separate and independent unit, making it impossible for the leaves to be separated unless deliberately torn or cut out. The hinges are heavily reinforced by specially heavy binding cloth sewed as a unit with the pages. Backs of volumes are unbreakable.

Laboratory-Tested for Stress and Strain

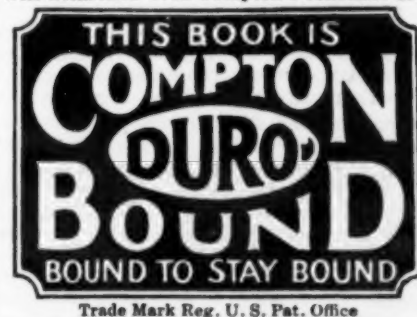
Before adopting Compton Duro-Bound, volume after volume was sent to a nationally-known laboratory. Each was clamped into a scientific strength test machine. Each subjected to accurately measured strain. The certified findings were beyond our expectations. Only under a constant pull of 160 pounds did the first thread give. And it required a pull of over 600 pounds, more than a quarter ton, before the binding gave way.

An Ideal Binding for School Use

This is indeed an ideal binding to meet the incessant thumbing, bending and pulling to which Compton's Pictured Encyclopedia is subjected to in the classroom and school library. Now teachers can banish any anxiety for the preservation of text matter in Compton's. For Compton Duro-Bound is bound to stay bound. The same red buckram cover and familiar design. Its beauty maintained and durability tripled. See this new binding—put it to a test. Only then will you know its worth.



DURO-BOUND
will withstand even Compton's constant use



The price remains the same, \$55

Write for sample pages or order direct from

F. E. COMPTON & CO., Publishers, 58 East Washington Street, Chicago, Illinois

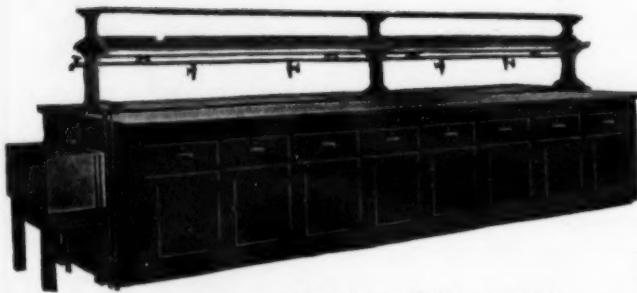
COMPTON'S PICTURED ENCYCLOPEDIA

10 Volumes • 4500 Pages THE ACCEPTED EDUCATIONAL STANDARD More than 8000 Illustrations

Peterson Laboratory and Library Furniture



Charging Desk L-5140



Chemistry Table No. 940

See the Peterson Exhibit

at the
**Convention of the Dept. of Superintendence
of the N. E. A. in Washington, D. C.**

BOOTH No. 4

You will find the very latest in modern Laboratory and Library Furniture. You are cordially invited.

Write for Catalog No. 14-A

Leonard Peterson & Co., Inc.

Manufacturers of Guaranteed Laboratory and Library Furniture

OFFICE and FACTORY

1222-34 Fullerton Avenue

Chicago, Ill.

DISTRIBUTORS IN—

New York
Grand Rapids
Minneapolis

Pittsburgh
Richmond, Va.
Kansas City

Denver
Huntington, W. Va.
San Francisco

Los Angeles
Omaha
Norman, Okla.

(Continued from Page 102)

—Watertown, N. Y. The school board faces the problem of how to deal with petty thievery in the high school. The board is compelled to meet the situation since it has received a number of requests for replacement of articles taken from desks and cloakrooms. Books, purses, and articles of clothing were among the articles stolen.

—School officials of the education department of New York City have reported marked progress in reducing the size of classes in the elementary schools. The number of classes with fewer than 35 pupils has been increased from 2,442 to 2,802, while the number of classes of 35 or more pupils, has been decreased from 14,963 to 14,348. The net decrease in all elementary classes has been due to the opening of junior high schools, which now include classes formerly reported as elementary. The biggest reduction effected has been in the number of classes with 50 or more pupils. In 1923 there were 1,035 classes with 50 or more pupils. In 1923 there were 1,035 classes with 50 or more children on register. This year the number is but 387.

—A survey of the all-year schools of Newark, N. J., will be made shortly by a group of educational experts, headed by Dr. M. V. O'Shea, of the University of Wisconsin, and Dr. Wilson Farrand, of Newark Academy. Those who will assist are Prof. Wm. A. McCall, of Teachers College, Columbia University; Dr. W. C. Ryan, of Swarthmore College, and Dr. Andrew Wylie, of Columbia University.

—New York, N. Y. The big issue in the school system during the year is likely to be the survival or abolition of the present board of superintendents which, since the consolidation of the greater city, has been the heart of the school system. This body which is made up of the superintendent of schools and eight associate superintendents, has been attacked on all sides, and has few supporters outside its own ranks.

It is brought out that thirteen years ago, the Hanus commission, after a survey of the schools, presented a report urging the elimination of the board of superintendents and the centralization of power and responsibility in a single individual. Members of the staff of experts who con-

ducted the recent school survey held similar views, but it is doubtful whether the committee itself will make any drastic recommendation. At least one expert has stated frankly in his report that the city cannot hope to have an efficient school organization unless it centralizes power and authority in a single head.

The individual chiefly affected by the proposed change, Dr. William J. O'Shea, city superintendent of schools, is opposed to the proposed change and has affirmed his faith in the efficacy of the board. He points out that during his incumbency, he has received nothing but loyal co-operation from his associates on the board of superintendents.

The attitude of the board of education on the question is problematical. Three years ago, when a bill was before the state legislature seeking to effect the centralization suggested, the board asked the legislature to defeat the measure. The board will now have an opportunity to reveal its attitude, unless it sees fit to hold in abeyance the recommendations of the survey experts. It is now almost a year since the survey was completed and thus far not one of the reports has been acted upon by the board as a body.

—A twelve months' public school term in Arlington County has been ordered by the Virginia State Board of Education. It is an experiment which may be the beginning of an all-year round school policy in the state.

—Enrollment in standard four-year schools in Virginia has increased 351 per cent in thirteen years, and the number of graduates 345 per cent. The number of accredited high schools has increased during the same period from 103 to 372.

—A recent report of the commissioner of education of New Jersey for the year 1924-1925 gives a summary of information concerning the schools of the state. The report shows the total enrollment of pupils in all departments to be 729,446. This represents an increase in the day schools of 16,685 boys and girls. To instruct 729,446 pupils 23,636 teachers were required.

The pupils were housed in 2,225 school buildings, an increase of fifteen over the previous year. All were furnished not only with teach-

ers, but with books, supplies and apparatus free of cost.

There were about 43,442 children transported to schools at public expense because there were no schools suitable in the neighborhood. Of this number, 13,950 pupils were transported to high schools outside of their respective districts.

The total expense of operating the schools in 1924-1925 was \$70,498,127. Of this amount, current expenses, insurance and the incidental expenses of the schools, amounted to \$53,246,542.

The cost of repairs, and replacements in school buildings, manual training, vocational education, continuation schools, evening schools and indebtedness amounted to \$17,251,584, making a total of \$70,498,127.

The expenses of the department of public instruction and the state board of education were \$159,807, which is a trifle more than a third of one per cent of the current expenses.

—Johnson City, Tenn. Intelligence tests are being given in the lower grades of the public schools. They have proven helpful in classifying and grouping the children advantageously. The enrollment for the school system is 4,270, which is slightly in excess of that of last year. The average daily attendance has been about 96 per cent for the first three months of the school year.

—Average school attendance is five per cent higher in counties which employ full-time truant officers than in counties which do not employ such officers, according to a survey recently conducted in 101 counties in Illinois.

—Insurance against injuries in school buildings, on school grounds, or in going to and returning from school, is provided for teachers and pupils of the higher state schools, elementary and advanced agricultural schools, and technical institutions of Bavaria. The insurance plan became effective with the beginning of the school year, 1925-1926.

—The question of printing high school textbooks by the state printing office of California, instead of by private publishing firms has been presented to the legislature for consideration. It is pointed out that these textbooks could be printed at a saving of at least \$200,000 a year over the present expenditure by private concerns.

(Continued on Page 107)

Eight Durand Features

- 1: Patented two-piece hinge.
- 2: Patented multiple locking device.
- 3: 16 gauge steel door flanged on four sides.
- 4: Drop forged handle.
- 5: Durand-Bell Pin Tumbler Lock.
- 6: Three standard finishes. Olive Green and Gray Enamel or Black Japan.
- 7: Parkerized rust proof hooks.
- 8: Choice of four approved types of ventilation.

The Durand Patented Hinge

shown in the encircled inset is the strongest and least conspicuous.

Swing the door open to an angle of 170 degrees and observe how the Durand hinge absorbs the shocks. Take advantage of the Durand representative's invitation to a ride on a Durand locker door. It'll carry you without danger to you or to the door.



DURAND
Steel Locker Company

33 South Clark Street
CHICAGO, ILL.

Representatives in all principal cities.

Ask for Catalog 21. It describes and illustrates Durand advantages.

(Continued from Page 104)

The printing of elementary books by the state has resulted in a saving that more than pays for the remainder of the state printing, according to J. E. King, state printer. The state printing expenditure now amounts to \$1,000,000 a year.

A reduction in the number of failures from 25.1 per cent to 14.9 per cent was effected in the schools of Elgin, Ill., in the second period of the first semester, according to Supt. R. W. Fairchild. The failures in the public schools ranged from 24.1 per cent to 4.9 per cent, showing the highest number in any one building is under the average for the first period.

In the high school the number of failures was increased through absences and failure to make up work, from 12.9 per cent to 16.4 per cent. In the second half of the sophomore class the failures decreased from 41.7 per cent to 16.8 per cent. There was an increase from 8.6 per cent to 21.6 per cent in the first half of the same class.

Nine school failures out of ten are attributed to the parents of children by Miss Adah Hess, state vocational advisor of Illinois. Permitting children to attend movies on school days, late hours, malnutrition, physical defects, were given as some of the causes for failure of pupils to pass a grade by Miss Hess.

Other causes for failure, in the opinion of Miss Hess, are failure of parents to encourage the child, and the apparent lack of respect of the parent for the teacher. Many parents are responsible because they forget that nature intended a long period of infancy for children. School work and simple recreation should suffice up to the age of 14 or 15. Miss Hess pointed out that there is need of closer cooperation between the home and the school in order that fewer failures may develop.

New Philadelphia, O. An attempt of the board of education to compel vaccination of pupils has met failure, due to a defect in the school attendance law. Under the law, parents of children excluded from school for failure to be vaccinated may not be arrested. In other words, parents may not be punished for failing to send their children to school after they have been excluded for failure to obtain vaccination

certificates. The school board has authority to exclude pupils not vaccinated, but it is up to the parents and the children whether they become vaccinated or not.

Under orders issued by Dr. Frank P. Graves, state commissioner of education of New York, the collection of money from children in the schools for relief funds will be discontinued. Dr. Graves points out that while contributions are supposed to be purely voluntary, a few pennies from each child, the organization of the drive usually causes the children to ask their parents for sums they can ill afford. He emphasizes that it is a violation of the bylaws of the state board of regents for collections to be held in the schools.

Dr. Graves points out that neither the board of regents nor the commissioner wishes to stand in the way of contributions to any deserving cause, but financial drives cannot properly be permitted in the schools and children forced through social obloquy to give beyond the means of their parents. We must protect the children and the schools.

The New York City board of education has taken a similar stand prohibiting the collection of funds for all purposes except for the junior red cross. This organization handles all appeals for relief made by various charities.

Mayor-elect James J. Walker of New York City has declared that during his administration, he will not allow partisan politics to enter into the educational system of the city. He declares he has no fads or fancies about the work of the schools, and that any opinions that he has are open to amendment any time that he is shown that what is offered is good. The only criterion by which a man may be judged for fitness to hold a school post, according to Mayor Walker, is ability and merit.

Classification of pupils in the New York City elementary schools, on the basis of mental ability, was begun at the beginning of the second semester in February, under orders of Supt. W. J. O'Shea. Wherever possible each grade will be divided into bright, normal, and dull classes. The classification begun by Dr. O'Shea is a citywide experiment of a principle which has been utilized by the high schools and

a number of elementary schools for several years. It is believed the plan is worthy of experiment for a period of at least six months.

The Montana State Board of Education recently passed a rule requiring that all eighth-grade pupils in schools having an enrollment of 500 or less take the state examination for entrance into high schools. The rule has been termed discriminatory against private and parochial schools by the leaders in parochial schools. Children of these schools feel it is unfair to them to ask that they pass the state examination after leaving the eighth grade.

State Supt. May Trumper, in explanation of the ruling, declared the eighth grade examination was required because of prevalent conditions in the schools and not because of conditions in the parochial schools. She pointed out that, because of constantly changing conditions and the shifting of teachers and superintendents, educational standards in rural communities are vacillating. For this reason, a standard has become necessary and the rule requiring examinations was passed to improve this standard.

Figures compiled by the state superintendent of schools of Washington show that the girls remained in school much longer than the boys. School enrollment in 1924-25 ran a trifle better than 80 per cent of the 407,271 children of school age in the state, though the average daily attendance was only 64 per cent of the census total or about 80 per cent of the number actually enrolled.

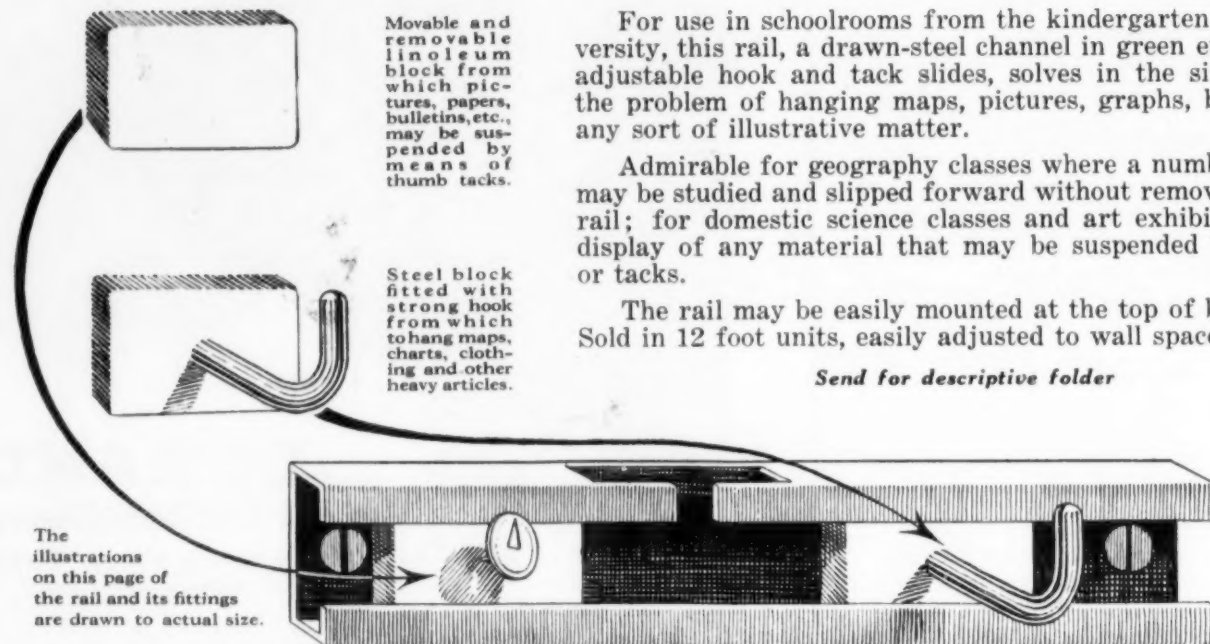
The boys led in daily attendance in the grade schools by 130,132 to 127,125, but the showing was only possible because the boys so heavily outnumber the girls in elementary schools.

The girls lead the boys in graduation from the eighth grade by 10,270 to 9,210 and in high school graduation they increase their percentage of lead when they show 5,073 graduates as compared with 4,032 boy graduates.

Another interesting set of figures show that 19,480 children graduated from the grade schools and in the first high school year there were 19,259 in average daily attendance.

A state high school athletic association has been formed in Rhode Island, with representation in all of the sixteen high schools of the state. The association has been formed to place

MacQuarrie Map and Display Rail



For use in schoolrooms from the kindergarten to the university, this rail, a drawn-steel channel in green enamel, with adjustable hook and tack slides, solves in the simplest way the problem of hanging maps, pictures, graphs, bulletins, or any sort of illustrative matter.

Admirable for geography classes where a number of maps may be studied and slipped forward without removal from the rail; for domestic science classes and art exhibits; for the display of any material that may be suspended from hooks or tacks.

The rail may be easily mounted at the top of blackboards. Sold in 12 foot units, easily adjusted to wall spaces.

Send for descriptive folder

RAND McNALLY & COMPANY

New York

CHICAGO, 536 So. Clark St. (Dept. B. 94)

San Francisco

high schools throughout the state on a uniform eligibility level.

—The Little Red Schoolhouse of American history, which has played such a large part in past events, is not going to be passed over and forgotten, if the New Jersey State Grange has a voice in the matter.

More than 400 members of the Grange, at the close of their two-day convention, adopted a resolution opposing the general trend toward centralized schools and reaffirming their belief in the efficiency of the little schoolhouse. The reason for opposing the establishment of centralized schools was the hardship to small children who must travel from isolated districts in buses to attend classes.

—Every ninth pupil in the elementary grades in Racine, Wis., fails to be promoted, according to Supt. F. M. Longanecker. Mr. Longanecker estimates that it costs the taxpayers about \$60 per capita annually to send children through the elementary grades. For each child who fails to advance a grade, the city must pay an additional \$60 for his instruction. Supt. Longanecker points out that summer schools for elementary pupils would save the city about \$30,000 each year, or the cost of repeating grades.

—The centralization of small school districts of Ohio into county units, or at least into larger units, has been recommended in a preliminary report made by the Ohio institute to the school finance committee of the State Teachers' Association.

The setting up of a minimum educational standard to be supported in rural and village districts by a uniform irreducible country district tax has also been recommended.

To provide the centralization deemed desirable, the preliminary reports to the committee suggest that the number of independent school districts be reduced by one of the following methods:

1. That all school districts having less than a specified tax valuation and a specified number of children for whom schooling must be provided be abolished and be joined to some other district.
2. That county districts be permitted by vote of the people to abolish all village and rural boards of education and to transfer their powers to the county board.

3. That the present provisions of law permitting village districts to exempt themselves from the supervision of the county district be repealed.

4. That any city school district be permitted by vote of its electors to abolish its board of education and become a part of the county district.

A recommendation was made that definite research be undertaken by the college of education of Ohio University in cooperation with the state education department to determine the factors entering into a state minimal standard and to propose additions or amendments to the present laws.

—The board of education of Mobridge, S. Dak., has adopted a rule whereby teachers are obligated to attend a summer school once in three years, and has provided a bonus of \$30 for successful work therein. This year the board has installed four half day kindergartens, and has placed the intermediate classes on the departmental basis.

HIGH SCHOOL ADMINISTRATION

—Longmont, Colo. Upon recommendation of the superintendent and the high school faculty, the board of education has adopted a resolution governing high school students who fail to make satisfactory progress. The rule provides that any student who fails to pass in at least three subjects in any semester will be placed on a probation list at the beginning of the following semester. Failure to pass in three subjects during the probation period means that the student will be dropped from high school, at the regular report time, or at the close of the semester.

A student dropped from school on account of poor work may not be reinstated before one semester has elapsed after the close of the semester in which he was dropped. When readmitted, such student will remain on probation until he makes a passing grade in at least three subjects in one semester.

Exceptions to the rule will be made by the board of education, upon the recommendation of the faculty, in cases of illness, part-time attendance, or superior attitude and effort on the part of the student.

—The high school at Pineville, Ky., has been placed on the list of the Southern Association of Colleges by the committee on accreditation. This is the highest rating given to Kentucky high schools.

—The board of education of New York City, has decided, beginning with February 1st, to charge all non-residents who enter the city's teacher training schools with a tuition fee. It has been ascertained that the per capita cost for 1925 was \$197.50 which is the amount that will be exacted.

—Beaver Dam, Wis. The school board has adopted a resolution providing that teachers seeking positions in the junior or senior high schools shall, for academic work, be graduates of a four-year normal, college or university course, and for vocational work, shall be graduates of a three-year normal or college course.

Night Schools Have Big Slump

—The evening elementary and trade schools of New York City are facing a big slump, according to recent registration figures made public by Supt. W. J. O'Shea. In November last, the elementary schools had a register of 39,474, which was a reduction of 7,734 from November, 1924. The attendance average was 28,427, a decrease of 5,881 in the same period.

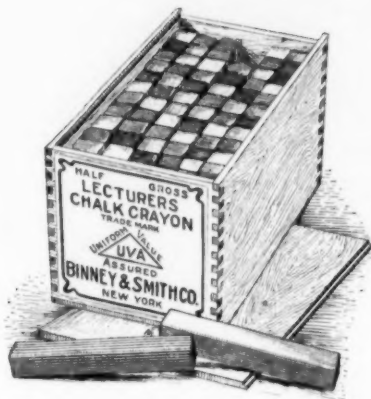
The evening trade schools reported a register of 11,876, which was 1,402 less than in November, 1924. The average nightly attendance of 5,363 represented a loss of 147.

The evening high schools, with an enrollment of 28,141, gained 2,499 pupils during the year. The nightly attendance averaged 20,088, an increase of 1,150.

PERSONAL NEWS

—Mr. B. F. Patschke has been reelected as president of the board of education of Lebanon, Pa., for a fourth consecutive term. Mrs. Cora H. Weimer, who was elected as secretary, is the first woman to serve as a member of the board.

—Mr. William H. Book, business director of the schools of Indianapolis, Ind., resigned on December 31st and was given a leave of absence until February. George Keiser, assistant business director, has been appointed acting business director.



For Greater Class-room Efficiency Specify "GOLD MEDAL" Products

IN striving to attain ideals in education, efficiency in method is largely dependent on quality in teaching materials.

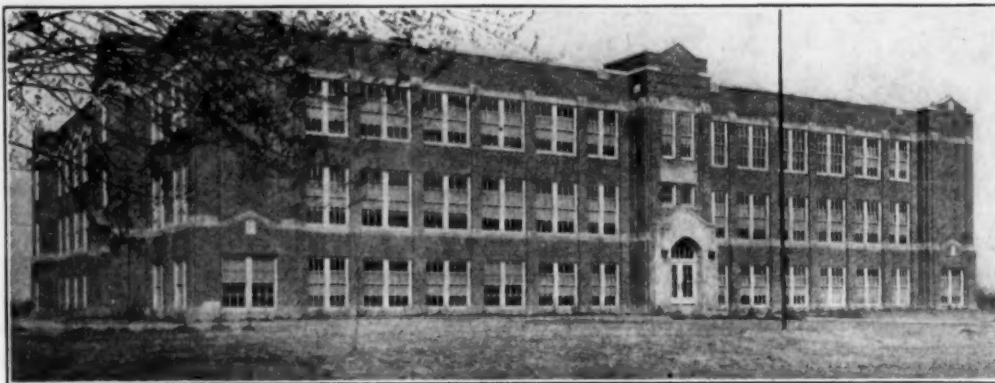
For this reason, "GOLD MEDAL" Products deserve thoughtful consideration, when making up the school supply budget for the coming year. For quality has always been held to be of first importance in their manufacture. The clarity and brilliance of color of "GOLD MEDAL" Blackboard Chalks, Lecturers' Crayons, Drawing Crayons and Water Colors make them highly desirable in blackboard demonstrations and the working out of individual problems, and help to conserve the pupils' eyesight. They are made by improved processes, from pure ingredients, in a modern factory. They promote schoolroom hygiene, and are extremely economical in use. Their prices are moderate, for such excellence, and successfully meet competition.

It is sound judgment, justified by actual performance, to specify "GOLD MEDAL" Products for every type of blackboard and seat work in grade and art classes in order to insure greater classroom efficiency on the part of both teachers and pupils.

We are always glad to send samples and color-charts.

BINNEY & SMITH CO.
41 East 42nd Street New York, N. Y.





Partial List of Schools Using GUNN "LINO" INSTALLATIONS

CALIFORNIA

Piedmont Public Schools

IDAHO

Pocatello Public Schools

ILLINOIS

Belleville High School

LOUISIANA

Alexandria Public Schools

Alexandria State Colony

and Training School

MASSACHUSETTS

Adams Public School

MINNESOTA

Buhl Public Schools

Kinney Public Schools

Moorehead Public Schools

MISSISSIPPI

Holly Springs Public

Schools

MICHIGAN

University of Michigan

Adams Public Schools

Public Schools in Alpena

Public Schools in Dearborn

Public Schools in Detroit

Public Schools in Flint

Public Schools in Grand

Rapids

Public Schools in Houghton

Kalamazoo State Normal

School

Lansing Industrial School

and Agricultural College

Marquette Public Schools

Mt. Clemens High School

Royal Oak High School

Saginaw Public Schools

St. Johns High School

Trenton Public Schools

Ypsilanti Normal

MISSOURI

Chillicothe Public Schools

Teachers College at

Maryville

Washington University at

St. Louis

NEW JERSEY

West Orange High School

NEW YORK

Girls' Commercial High

School at Brooklyn

Elmira South Side High

School

New York City Public

Schools

Niagara Falls High School

Phelps Public Schools

NORTH CAROLINA

Wadesboro High School

OKLAHOMA

University of Oklahoma

Manchester Public Schools

OHIO

New North and South High

Schools at Columbus

Warren Public Schools

PENNSYLVANIA

Altoona Public Schools

Harrisburg, Wm. Penn

High School

Pittsburgh Public Schools

Seranton Central High

School

TEXAS

Commerce Public Schools

Denton Public Schools

VIRGINIA

University of Virginia

Alexandria Public Schools

WISCONSIN

University of Wisconsin

Milwaukee, Shorewood

Schools

Many of Our Finest Schools

are now using

GUNN "LINO"

Trademark Reg.

Desks and Tables

Send for full information
and descriptive circular.

"It Isn't a
"LINO"
Unless It's a
GUNN"



THE GUNN FURNITURE COMPANY

35 Years Builders of Desks and Bookcases

GRAND RAPIDS, MICHIGAN



THE STATUS OF THE MARRIED WOMAN TEACHER

—The Educational Research Bulletin of Pasadena, Calif., recently printed an item governing the status of married and unmarried women teachers in the profession. The material was obtained from a questionnaire sent to 94 of the larger cities of the country to ascertain (1) the extent to which women are in positions of administrative and supervisory responsibility in city schools; (2) the extent to which married and unmarried women have equal opportunities in securing teaching positions.

Replies were received from 68 superintendents of systems employing approximately a total of 8,000 men and women in administrative and supervisory positions. In answer to the question, "Do you employ married teachers?" 34 superintendents answered yes, eleven answered no, and nineteen were conditional.

Two other questions answered by the majority of the superintendents were of such a nature that the replies cannot be so easily tabulated. "If you employ married and unmarried women," it was asked, "which do you consider most efficient? In what way?" Some of the replies received on these questions were as follows:

"The married teacher generally has home duties that command the major portion of her interests."—Reading, Pa.

"Unmarried women are most efficient. The married women oftentimes are obliged to remain away from school because of outside interests. Their first interest is not in the school."—Newark, N. J.

"We have only six married women out of a force of 320. Their average efficiency is about the same as the remainder of the corps."—Racine, Wis.

"Marriage is not a factor in efficiency. Efficiency of teacher depends upon personality and experience."—San Diego, Calif.

In answer to the question, "If you do not employ married women, what is the chief reason for not employing them?" the replies are varied.

"Our chief reasons for not employing married women regularly is that we feel that those who are wholly dependent upon themselves should have preference. Second, our experience is that a divided interest renders one less efficient."—Fort Worth, Tex.

"The principal reason for employing only married women who must support themselves and family is that during the last two years there has been a large number of unmarried teachers who have not been able to secure employment because of the lack of positions."—Duluth, Minn.

"Too many women seeking positions."—Scranton, Pa.

"We have a large number of unmarried women waiting for appointment."—Jersey City, N. J.

"The chief objection raised at present is that married women are crowding out of the profession the young teachers who are not able to secure positions outside the city and are residents of the city."—Harrisburg, Pa.

"We do not employ married women since we find their chief interest is in the home and if there is any disorganization in the home, the home takes preference over the school."—Sioux City, Ia.

Supt. E. E. Lewis of Flint, Mich., in a recent book, "Personal Problems of the Teaching Staff," has discussed the problem of the married teacher at length. He concludes "it is a matter which depends upon the woman. Individual merit, and merit only, should determine the status of married women as teachers."

TEACHERS AND ADMINISTRATION

—In San Francisco, California, 39 teachers, who had reached the age of 70, were retired. Superintendent J. M. Gwinn figures that each of these teachers had taught an average of 9,000 days.

—During the year 1925, the public schools of New York City lost over 600 teachers due to resignations and deaths.

—Alabama employs 5,310 colored teachers. Their average salary is \$64.85 per month. The rural teachers receive an average of \$59.44 and the city school teachers an average of \$82.62. The average cost of instructing each pupil enrolled in the colored schools is 6.9 cents per day. In the rural schools this cost is 6.3 cents per day, and in the city schools it is 8.7 cents per day. The largest cost is in the eight large cities, with an average of 10.9 cents per day, and the least cost is in the rural systems, where it costs 6.3 cents per pupil per day.

—Teachers in Terre Haute, Ind., will not be eligible for reappointment after June, 1926, where they have taught five years without having attended a summer school or its equivalent. They are required to earn a credit for the study of at least two subjects, for a minimum of five and a half weeks, with not fewer than 22 recitation hours per week in each subject.

—Colored smocks, in shades to suit individual taste, have been adopted as the professional dress for practice work with little children by students of the Cleveland kindergarten primary training school. The smocks are used in lieu of a dress in warm weather, and are worn over the street dress in winter.

—Teachers over 41 years of age who have never taught in the public schools of New York City hereafter will be unable to qualify for a license to teach, as a result of a new rule passed by the board of education. It had been the policy of the board for many years to permit teachers of this type to qualify for teachers' licenses by the suspension of the bylaws. Within the past few years there has been an increasing number of such cases and the board feels that the privilege has become an abuse.

In the future the board will apply the 41-year-age limit to all teachers' licenses, except those for shopwork and cooking, in which some difficulty is still being experienced in getting an adequate number of qualified teachers.

—Watertown, N. Y. At a recent meeting of the school board, a resolution was adopted governing substitute deductions for teachers absent from classes. The rule reads: "No salary will be deducted from a teacher regularly absent for five days during the school term. The full

(Concluded on Page 112)

*Good paper
improves the
hand writing*



Pencraft

Perfect Penmanship Paper

Look for the Watermark

PENCRAFT meets the demand of the day for a high grade distinctive and serviceable penmanship paper--and at a cost so moderate as to make it immediately the outstanding penmanship paper value on the market.

PENCRAFT is tough and lasting. Its hard smooth, satiny finish assures the ink flowing on freely, evenly and drying quickly. The durable body prevents the pen from breaking thru or sticking, both desirable and essential features in a perfect penmanship paper.

And PENCRAFT is moderate in price. More so, than many brands of inferior quality. It is furnished ruled in various forms to meet the different class requirements, and can also be had in blank sheets if desired.

Look for the PENCRAFT watermark. It appears on every sheet of genuine PENCRAFT paper and is your guarantee of quality, uniformity and protection against substitutions.

Sample sheets on request.

List of Dealers

- THE C. W. BARDEEN CO.,
313 E. Washington St.,
Syracuse, N. Y.
- BOCKSTANZ BROTHERS CO.,
Virginia, Minn.
- BURGHER-WILLIAMS CO.,
131 Woodbridge St., Detroit, Mich.
- CLANTON & WEBB CO.,
147 Whitehall St., Atlanta, Ga.
- COLBORN SCHOOL SUPPLY CO.,
Grand Forks, N. D.
- EAU CLAIRE BOOK & STATIONERY CO.,
Eau Claire, Wis.
- EDUCATIONAL SUPPLIES CO.,
412 First Ave., Cedar Rapids, Iowa.
- EDUCATOR SUPPLY CO.,
Mitchell, S. D.
- R. A. FIFE CORP., Mamaroneck, N. Y.
- FOND DU LAC SCHOOL SUPPLY CO.,
Fond du Lac, Wisconsin.
- JOHN W. GRAHAM & CO.,
Spokane, Wash.
- HUB CITY SCHOOL SUPPLY CO.,
Aberdeen, S. D.
- THE JONES BOOK STORE,
Los Angeles, Calif.
- KURTZ BROTHERS, Clearfield, Pa.
- O. B. MARSTON SUPPLY CO.,
Phoenix, Arizona.
- THE McNEIL COMPANY,
Phoenix, Ariz.
- J. FRED OLANDER,
Pierre, S. D.
- STANDARD SCHOOL SUPPLY CO.,
204 Walnut St., St. Louis, Mo.
- THE STATIONERS CORPORATION,
523 S. Spring St.,
Los Angeles, Calif.
- UNION SCHOOL FURNISHING CO.,
1028 W. Van Buren St.,
Chicago, Ill.
- C. F. WEBER & CO.,
601 Mission St.,
San Francisco, Calif.
- C. F. WEBER & CO.,
222 So. Los Angeles St.,
Los Angeles, Calif.
- C. F. WEBER & CO.,
Reno, Nev.
- C. F. WEBER & CO.,
Phoenix, Arizona.
- T. R. WOODBURN CO.,
Terre Haute, Ind.

PENCRAFT is distributed and sold nationally thru dealers. Purchase thru nearest distributor.

American Tablet & Stationery Co.

GREEN BAY, WISCONSIN



HANDLEY SCHOOL, WINCHESTER, VA.

W. R. McCORMACK, ARCHT., CLEVELAND

OUR ENGINEERING DEPARTMENT WILL GLADLY DESIGN AN EQUIPMENT TO MEET THE MOST COMPLEX REQUIREMENTS OF SCHOOLS AND COLLEGES

LANDIS

ELECTRIC TIME
AND PROGRAM
CLOCKS

ALSO

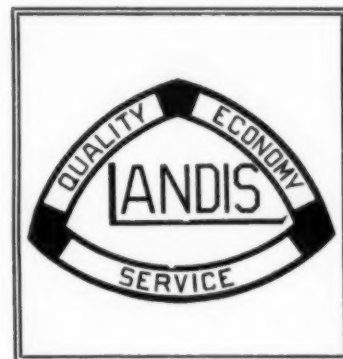
EMERGENCY
LIGHTING SYSTEMS

A RELIABLE CONTROL SYSTEM
UNFAILING SIGNALS
MINIMUM MAINTENANCE COST

Landis Engineering & Mfg. Co.
WAYNESBORO, PA.

BRANCH—

423 BOARD OF TRADE BLDG.
INDIANAPOLIS



(Concluded from Page 110)

salary will be deducted from teachers who are irregularly absent (same as illegal absence of pupils). Teachers absent more than two successive days because of illness must furnish a doctor's certificate if they wish to receive the full salary. After five days' absence on account of illness, \$5 a day will be deducted from the salary."

—Miss Lucille Nicol, who was recently reappointed district superintendent of schools in Queens Borough, New York City, following a two years' court case, has received compensation for the months of April, May, June, July, August and September, 1925.

—The attorney general of Colorado has decided that a teacher holding a certificate of the third or second grade may be allowed to take the county examinations in the subjects required to build up the certificate to one of a higher grade, even though she may not have all of the present requirements. The attorney general holds that to deprive such teachers of this right would make the law retroactive and would be contrary to the spirit of fair play and safeguarding the public welfare.

Teachers or others not holding a certificate of third or second grade are required to present evidence of ten weeks of college work, as well as graduation from high school, in order to be allowed to write on the examinations.

—The passage of Supt. William McAndrew's emeritus service rule, retiring members of the Chicago teaching staff at the age of 70, is believed virtually assured. The plan has been approved by the school board's finance and rules committees and it is expected that the rule will become effective on February first.

The emeritus plan provides \$1,500 to \$2,500 annually. The full salaries of the 93 listed as eligible for retirement are estimated at \$285,000, while the retirement allowance would total \$140,000. Teachers and principals retired will form a reserve list, subject to call by the superintendent in case of emergency.

An Honor Roll for Teachers

The suggestion comes from an old time educator, Mr. G. W. A. Luckey, that an honor roll of teachers, who have served a half century or more, be created. He points out with consider-

able force the value of that service, and to the fact that the honor roll would prove a constant inspiration to the cause of popular education. Mr. Luckey stands ready to collate the essential facts and compile the same, and invites the cooperation of the school public to that end. His address is 1401 Fairmont Street, N. W., Washington, D. C.

Self Surveys for Teachers

The self survey idea is being promulgated by Harold G. Campbell, associate superintendent of the New York City schools. A report blank which he has issued asks principals the following questions:

To what extent has been brought about the common discussion of professional topics among the teachers of his department?

Cite examples.

What has he done to keep his teachers in touch (a) with the current professional literature of his subject?

(b) With professional associations in the same field of work?

To what extent, for example, by (a) encouraging experimentation in the classroom, (b) by encouraging each teacher to take part in the formulation of departmental policies, or (c) by any other means does he create favorable conditions for the teacher to grow into the full measure of his powers?

Furnish evidence of constructive leadership by the candidate within his department.

What definite improvements has he effected in the teaching within his department?

Reduction in Part-time in New York City Schools

—New York, N. Y. During the past year the public schools have absorbed an increase in register of 19,142 students and have reduced part-time by 30,896 and the special schedule by 42,191. These facts were recently given by Supt. W. J. O'Shea, in making public statistical analysis of school registration for the month of November.

The report shows that the gross aggregate register of all public day schools of the city was 935,718 students, representing pupils of all ages from the kindergarten pupils to the new teachers in training schools. The registration was divided as follows among the various types

of schools: Elementary, 858,262, or 87.07 per cent; high school, 119,505, or 12.12 per cent; training, 3,651 trade and vocational, 3,927, and truant, 373.

In addition to this number, there are the evening school students, who, when added to the day school total, bring the city school population well over the 1,000,000 mark.

The growth in the outlying sections of the city is also shown. Queens is carrying the heaviest burden of congestion, with 14.65 per cent of its elementary school children on part-time, and Richmond Borough is close behind, with 12.48 per cent of its pupils on part-time. A drop in registration has made possible the total abolition of part-time in Manhattan elementary schools, the first borough to be freed of its makeshift program in many years.

The reduction in part-time has been attributed to the addition of school facilities and sittings through the opening of new school buildings. During the twelve months prior to November last, the school board had placed in commission 56 new elementary school buildings, fifteen additions to existing buildings, and six temporary structures and five new high schools and three high school additions.

In the city high schools, the report shows an increase in register of 11,636 was absorbed, while part-time was reduced by 14,930 students. The total number of day school students on full time regular session was reported as 88.12 per cent, the number on part-time as 5.66 per cent, and the number on special session as 6.22 per cent of the total register.

The class organization figures reveal a reduction in oversize classes. A year ago there were 456 classes in the schools with registers in excess of fifty pupils each. This year there were but little more than half that number of oversize classes, the report giving the figure as 249. In considering the reduction of oversize classes, it is pointed out there has been an increase in the total number of classes of 585, bringing the figure up to 21,957. This, according to Supt. O'Shea, indicates in an additional manner the relief to congestion afforded by the opening of new buildings.

Carload of Laboratory Furniture

ON EXHIBIT AT
WASHINGTON, N. E. A.



The above illustration shows our No. 100 Chemistry Table and Patented Individual Fume Hood, one of the 40, or more, designs which will be displayed in the Sheldon N. E. A. exhibit.

Over 40 pieces of Sheldon Laboratory Furniture covering 1288 square feet of floor space will be on exhibit at the N. E. A. Convention in Washington, Feb. 21st to 25th.

The furniture has been selected, and will be arranged to show complete plans for equipping science laboratory, vocational and home economics departments.

If you are planning a new school building this will be a wonderful opportunity to personally examine Sheldon equipment!

Our most experienced representatives will be present to discuss your problems with you.

The exhibit will be conveniently located just off the main lobby leading to the auditorium!

E. H. SHELDON & CO.

Manufacturers

MUSKEGON

MICHIGAN

Laboratory, Home Economics and Vocational Furniture

TEACHERS' SALARIES

NEW SCHEDULE FOR PORTLAND, OREGON

—Portland, Ore. The school board, after careful consideration of the various angles in the preparation of the salary schedule, has effected some adjustments and increases, making necessary a somewhat larger sum of money than was originally anticipated. To meet the situation, an even allocation of \$100 a year has been apportioned each member of the teaching staff. The remaining sum has been allocated in accordance with the schedule and represents seventy per cent of the increase over and above the flat increase of \$100 a year, which applies for the year 1926. The remainder, approximately thirty per cent of the increase, becomes effective in 1927.

The action of the board gives as nearly as possible, a single salary schedule, based upon training, experience, and scholastic equipment, with just and due regard for the present members of the teaching staff who were appointed prior to the time when normal diplomas and college degrees were required as prerequisites.

The new schedule provides the following salaries for the different groups of teachers:

CLASSROOM TEACHERS			
	Less than Bach. Deg.	Bachelor's Degree	Master's Degree
2 to 3 years.....	\$1,300	\$1,600	\$1,700
After 4 years.....	1,350	1,650	1,750
After 5 years.....	1,400	1,700	1,800
After 6 years.....	1,450	1,750	1,850
After 7 years.....	1,500	1,800	1,900
After 8 years.....	1,600	1,900	2,000
After 9 years.....	1,700	2,000	2,100
After 10 years.....	1,800	2,100	2,200
After 11 years.....	1,900	2,200	2,300
After 12 years.....	2,000	2,300	2,400
After 13 years.....	2,100	2,400	2,500
After 14 years.....	2,200	2,400	2,500

*Maximum beginning salary.
Vice-Principals, \$2,750; Dean of Girls, \$2,750; Supervisors, \$2,900; Heads of Departments, Class "A," \$250 above teacher schedule; Class "B," \$200 above teacher schedule; Class "C," \$150 above teacher schedule; Evening School Supervisor, \$1,800.

Elementary Principals	
Two and three room buildings.....	\$2,260
Four, five and six room buildings.....	2,360
Average number belonging of 200.....	2,460
Average number belonging of 300.....	2,700
Average number belonging of 400.....	2,940
Average number belonging of 500.....	3,200
Average number belonging of 600.....	3,500
Average number belonging of 800 or more.....	3,600

High School Principals	
Average number belonging of 800 or less.....	\$3,750
Average number belonging of 800 to 1,500.....	4,250
Average number belonging of 1,500 or more.....	4,350

Provided that a principal of a two, three, four, five or six room building, with a bachelor's degree, shall receive the maximum salary of a teacher with a bachelor's degree.

All employees in the system not provided for in the above schedule holding master's degrees shall receive \$100 above the schedule for bachelor's degree.

For the calendar year 1926, the sum available, \$341,550, will be applied as follows:

1. \$100 for each primary teacher (119) in platoon schools, placing same on a 3:30 p. m. dismissal schedule.....	\$ 11,900
2. \$100 for every member of the corps (1,672) who is not receiving a salary above schedule at the present time, this flat increase of \$100 to be effective for the calendar year 1926.....	167,200
	\$ 179,100

3. After the deductions named in one and two have been made from the \$341,550, the balance of the fund will be used to approximate the above schedule, based on a percentage basis. (The percentage will be approximately 70 per cent.) If funds permit the schedule in full will go into effect January 1, 1927.

4. Total sum needed to put the above schedule into effect, including the one and two above..... \$ 407,530 |

5. Sum needed to put the above schedule into effect after deducting one and two from \$407,530..... 228,430 |

6. Sum available for schedule after deducting one and two from \$341,550..... 162,450 |

\$162,450 ÷ \$228,430 = 71.5%.

7. The schedule as adopted became effective January 1, 1926, and is not retroactive as to its provision concerning degrees. All regularly elected elementary teachers as of January 1, 1926, doing full-time work with less preparation than bachelor's degree will be classified in the list of "less than bachelor's degree" and all regularly elected high school teachers as of this same date will be classified in the list "bachelor's degree."

TEACHERS' SALARIES

—Providence, R. I. The new seven-member school board went into effect with the creation of new positions and the raising of salaries in the school department. The board raised the pay of Supt. I. O. Winslow from \$6,500 to \$7,500; Deputy Supt. William H. Eddy, whose title was

changed from that of first assistant superintendent, had his salary raised from \$5,000 to \$6,000; Richard D. Allen, who was promoted from director of vocational guidance to assistant superintendent of research and guidance, was raised from \$3,500 to \$5,000; Erik A. Anderson, director of manual arts, was promoted to assistant superintendent in charge of vocational education, buildings and grounds, and his pay raised from \$4,000 to \$5,000; Henry B. Rose, secretary, was given the title of secretary, auditor and supervisor of accounts and his salary raised from \$5,000 to \$5,500; purchasing agent, O. E. Loveland, had his salary raised from \$3,000 to \$3,500.

—Syracuse, N. Y. One hundred women high school teachers have filed notice with the school board threatening to bring suit because the board reduced the women's pay to \$2,400. It appears that until September, the salaries of men and women were \$2,650. The suit also includes a demand for payments in arrears.

—Colorado Springs, Colo. For the third consecutive year, school teachers of the city will receive only fifty per cent of the regular increases in salary, in cases where increases have been granted. The instructors were not allowed the customary increases owing to the economy program of the district. Believing that no emergency existed, the teachers had requested that the board make provision for full salary increases this year.

—Worcester, Mass. The school board has granted an increase of \$100 a year to Josephine E. Eagen, a former teacher, but for the last two years clinical examiner in the public schools, until her salary reaches a maximum of \$2,100.

—A condensed comparative table on the salaries paid in New York and Chicago shows the following:

	New York	Chicago
Elementary teachers.....	\$2,875	\$3,250
Assistants to principals.....	3,600	3,500
Elementary principals.....	4,750	6,250
High school teachers.....	3,700	4,700
High school principals.....	6,500	7,500



Artist's Table No. 535 shown above is a standard design for school art rooms, and is a very well made article.

HAMILTON School Furniture

Has back of it nearly fifty years experience manufacturing quality goods.

Real Quality is the highest type of economy, and is the best means of eliminating waste. Buy for the future and it will pay dividends, as costs and prices will never be lower than now. Ask for catalog.

The Hamilton Mfg. Co.
Two Rivers, Wis.

NEWS OF THE SCHOOL BOARDS

PROGRESSIVE SCHOOL BOARD ATTITUDE

The school authorities of Kane and Kendall Counties, in Illinois, have taken a progressive stand on the administration of their schools. At a recent convention of the school officers' association representing the two counties, held at Aurora, it was recognized that the problem of providing adequate educational facilities for the children in all parts of the state is still unsolved.

The organization went on record favoring a state distributive fund of not less than twenty million dollars. It voiced its sentiments on the present system of taxation which is deemed "inadequate, antiquated, and inefficient." It also expressed the belief that a tenure law should be enacted whereby teachers, principals, supervisors and superintendent may be appointed for five years after serving a period of from two to three years. One year's normal training is exacted from all teachers for both city and rural schools.

Recognizing that a better service demands a better compensation and that the present salaries are not in accordance with the cost of living, the following resolution was adopted: "That in order to attract the very cream of the teaching profession to these counties, we gradually increase salaries until the maximum for grade teachers below the position of principal be not less than two thousand dollars per year, and the maximum for high school teachers below the principal be not less than three thousand dollars per year."

The resolution adopted also puts the association squarely on record favoring physical training, opposing the use of the schools for propaganda outside of their recognized educational purpose, and discourages schoolhouse visitations by book agents.

The resolutions were framed by a committee consisting of Dr. G. O. Kerfoot of the Batavia school board, chairman; President Dietrich of the East Aurora school board, and Mr. Renwick of the Geneva school board.

AMONG BOARDS OF EDUCATION

—D. T. Coleman was elected member of the school board of Montesano, Washington.

—The school board of Boise, Idaho, is opposed to high school clubs. Mr. B. Oppenheimer, chairman of the school board, says: "The clubs are aimless. They are controlled by the whim or caprice of mischievous, restless spirits who are just arriving at the age which chafes under parental and other restraint. They lack the steadying influence of leadership from strong men and women who have grappled with temptation and developed moral stamina. They are organized simply for a good time among adolescents, are run and managed by the immature who cannot always detect, much less curb, the unrestrained behavior of some of their members. Their affairs are not consistently supervised by dependable adults and their social events are frequently not even chaperoned."

—Buffalo, N. Y. The school board has increased the salaries of several employees of the

building bureau. The salary of the supervisor of architecture has been raised from \$4,500 to \$5,000; that of the supervisor of construction has been raised from \$4,500 to \$5,000; that of the supervisor of architecture, with the title of structural engineer, from \$3,000 to \$3,800, and that of the supervisor of heating has been raised to \$4,500.

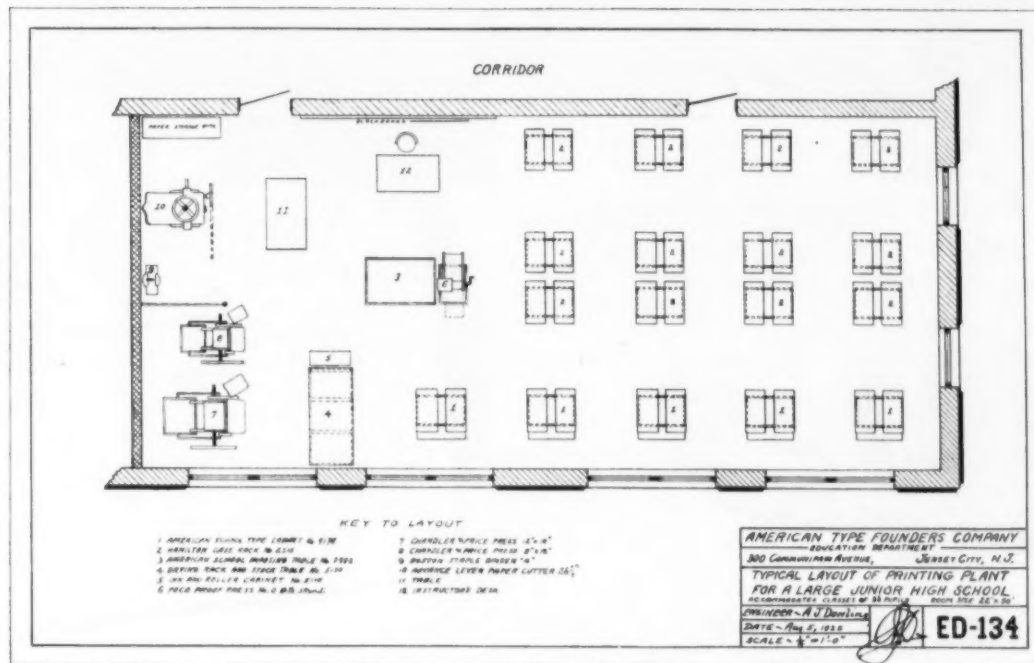
—The new board of education of Providence, R. I., consists of George J. West, L. H. Hazard, Mrs. Mary J. Lynch, Mrs. Annie C. E. Allinson, Francis J. Brady, and William L. Sweet. The latter was chosen chairman. Col. Henry B. Rose remains secretary of the board.

—The seat shortage in the Chicago schools has within the past two years been cut from 70,000 to 48,000 seats despite an increased enrollment of 32,000. By the end of 1926 it is promised that the shortage will be cut another 18,000 seats. The Chicago Tribune in commenting upon the progress made, says: "After years

(Continued on Page 118)



NEW SCHOOL BOARD OF FIVE MEMBERS BEING SWORN IN AT PROVIDENCE, R. I., BY MR. HENRY B. ROSE, SECRETARY OF THE SCHOOL BOARD.



Layout of a School Printshop to accommodate Thirty-six Pupils

Thirty-six Pupils to one class in PRINTING

THE above sketch shows how thirty-six pupils can be efficiently handled and successfully taught at one time, in the School Printing Department.

Not always is it desired to have such a large number in one class, but the above layout proves that this number can be accommodated without loss of efficiency in teaching—and at a slight extra cost—when for economic reasons it is desired to enlarge the Printing Class.

Printing is the ideal industrial subject for all types of schools, but especially is it ideal for the Junior High School. It combines academic and trade instruction. Spelling, punctuation, paragraphing, margining, literary construction, grammar, even arithmetic, are all used in a practical way in the teaching of Printing.

The major activities of your school will center around your school printshop. Write for prices and other information regarding any size of printing outfit for educational purposes.

F. K. PHILLIPS, Manager, EDUCATION DEPARTMENT

AMERICAN TYPE FOUNDERS COMPANY

300 Communipaw Avenue, Jersey City, N. J.

It's the Lock That Locks the Locker!

Ask Mr. Stuart H. Rowe

Short—and right to the point. The letter from Mr. Stuart H. Rowe tells the Dudley Story.

Satisfaction. That is what every school in the country desires of their locker installation. You'll get it with the Dudley Locker System.

Remember—"It's the Lock that locks the locker!" Don't be deceived! Get the facts about Dudley Keyless Combination Locks.

Send for sample lock for Free Inspection and Booklet, "Successful Locker Equipment."



TRIPLE METALS CORP.

107 N. Market St. — Dept. 16 — Chicago, Ill.



DEPARTMENT OF EDUCATION
THE CITY OF NEW YORK
THE WADLEIGH HIGH SCHOOL
117TH STREET, WEST OF SEVENTH AVENUE
PHOENIX, ARIZONA 85002
STUART H. ROWE, PRINCIPAL

January 3rd, 1926.

Triple Metals Corporation,
107 North Market Street,
Chicago, Illinois.

Gentlemen:-

We have used fourteen dozen of the
Dudley Keyless Combination Locks made by your
company and found them very satisfactory.

Very truly yours,

Stuart H. Rowe
Principal.

"Best Insurance for a Perfect Locker Installation"

(Continued from Page 116)

of school boards which promised much and did little, it seems that Chicago has at last an organization managing its public schools which measures up, far beyond preceding boards, to the requirements of what a school board ought to be."

—The first meeting of the new Providence, R. I., board of education, a body of seven members reduced from thirty, proved an executive session, whereupon the Tribune of that city said: "The action of the new school board in going into executive session to transact its business was a surprise to newspaper men and others who have been acquainted with the affairs of the school department during the past few years. It was expected that with the inauguration of the new school body all business relating to the schools would be conducted in the open, with a view of letting the taxpayers know what was going on."

—The annual report of the Elgin, Illinois, schools is an attractive document. Superintendent R. W. Fairchild discusses administration, teachers and teaching, code of ethics, thrift, summer sessions, age-grade distribution, tests and measurements, and school costs. He closes with a list of accomplishments and recommendations. The report is liberally illustrated with exteriors and interiors of school buildings. The board of education consists of C. E. Fairchild, Dr. S. L. Gabby, F. J. Schmitz, Mrs. Margaret J. McQueen, F. A. Ziegler, O. E. Salisbury, F. E. Hallock, C. F. Ackerman, B. C. Bronson, A. L. Metzel, C. A. Soper, Laura C. Kimball, and President A. M. Price. J. H. Manley is the secretary.

—Erie, Pa. The school board has established classes for the instruction of custodians, both beginners and advanced. The classes will be conducted as regular night school work, to receive credit through the regular channels of state aid. The advanced class has an enrollment of fourteen custodians and the work covers electrical control, ventilation, power plant operation, and similar phases of school custodial work. The class for beginners has a satisfactory enrollment and the work should prove equally as successful as in the advanced class.

—Monroe, Mich. The high school tuition fees

have been increased from \$80 to \$100, and grade tuition from \$35 to \$50.

—Warsaw, Ind. The school board has taken out insurance on the school buildings and contents on an 80 per cent basis, and tornado insurance on a 50 per cent basis. Uniform policies afford more adequate protection at a lower cost.

—Indianapolis, Ind. Members of the school board and the business agent have been temporarily enjoined from executing contracts with architects for erecting six grade schools. It was charged that irregularity in the method of selecting architects, and the fact that money for the construction work was not at hand made it an illegal procedure.

—Commissioner John H. Logan of New Jersey has sustained the board of education of Phillipsburg in its dismissal of A. R. Ackerman, a teacher in the high school. The commissioner held that the superintendent acted outside of his authority in stating the appointment was

permanent, and that the latter's action was not binding upon the board.

—Napoleon, O. William Orthwein, a taxpayer of Flatrock township, has filed suit against the school board of that township, restraining it from placing an additional tax on the tax rolls for the \$64,000 bond issue carried last November for school purposes. The bond issue was for repairs on the grade and high school in the village of Florida.

—The Supreme Court of Michigan has ruled that boards of education are not responsible to city councils for the amount of their yearly budgets so long as they remain within the municipal tax limits and the general laws governing their conduct.

The Court reversed a decision of the lower court which had ruled that the Union School District of Saginaw could not compel the city council to levy a tax for the entire budget of 1924.

(Continued on Page 121)



MEMBERS OF THE RHODE ISLAND SCHOOL OFFICERS' ASSOCIATION.

*Protecting
the Health of
Young America*

*No. 1 of
A Series*



*Shreveport (La.)
High School
EDW. NEILD
Architect*

SANITATION—the keynote

Plenty of light and air—every convenience and comfort—but more than that—**SANITATION**. In fact **sanitation** is the keynote of the modern educational edifice. And Halsey Taylor Drinking Fountains play an important role in protecting the health of Young America.

The Taylor line comprises models for every purpose and at various cost levels—but no matter which you choose you are assured the utmost in health-safe features. Automatic stream control, two-stream projector, elegance of design—many, indeed, are the advantages in Halsey Taylor equipment not procurable in any other. **Write for catalog!**

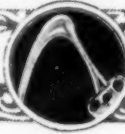
The Halsey W. Taylor Co., Warren, Ohio

HALSEY TAYLOR
Drinking Fountains

Recent School Specifications

New Hyde Park Grade School,
New Hyde Park, N. Y.
Geo. W. Conable, Archt.
Ritchie School Bldg.,
Wheeling, W. Va.
C. E. Bates, Archt.
State Teachers College,
Nacogdoches, Tex.
W. F. Ketchum, Archt.
West Side High School,
Newark, N. J.
Guilbert & Betelle, Archt.

AUTOMATIC STREAM CONTROL



PATENTED TWO-STREAM PROJECTOR

(Continued from Page 118)

—Miss Amelia Wagoner, a former Albany teacher, has sued the school board of Athens, Ga., for \$10,000 damages, claiming her reputation was damaged following her dismissal.

—Madison, Wis. The school board has been asked to introduce the school traffic police system in the local schools. Under the plan boys 12 years of age or over are given police powers in safeguarding the lives of children at traffic intersections near schools.

—The school board of Anderson, Ind., is contemplating the appointment of a business manager for the public schools. The creation of the new office will leave the superintendent of schools free to devote more time to the educational work.

—Portsmouth, O. The board of education has purchased equipment for a new system of accounting in the office of the clerk of the board. The system has been approved by the Bureau of Accounting and places the school system on a par with any in the state.

—Lewistown, Mont. The school board has adopted a resolution reducing School District No. 1 from a first-class to a second-class district. The action was taken in view of the fact that the population has fallen below the 8,000 required by law. The change reduces the board of trustees from seven to five members, with an annual saving of \$250 in election expenses.

—Members of a board of education who work on a school building over which they have control are liable to prosecution regardless of whether their action was opposed by voters of the district, according to a decision of the attorney general of Wisconsin.

—Madison, Wis. The city council has adopted a minority report of the board of education, giving the board control of the city recreational program and placing the proposed director of recreation under its supervision. The adoption of the proposition followed an attempt to postpone final action. The majority proposal backers hint that a fight will be made against the fund transfer.

—Upon the ground that three employees of the Bayonne, N. J., board of education were not under the protection of the tenure act of the state, Commissioner John H. Logan of the state education department has dismissed their ap-

peals. The offices of the three officials were terminated under a resolution adopted by the board February 19th, last.

—Elyria, O. Judgment for \$127.50 was recently returned by a jury in common pleas court for F. E. Shubert, against the Pittsfield board of education for transporting his daughter to school. The state examiner had previously ruled against payment of the bill but recently a similar case was upheld by the Supreme Court.

—To save James E. Dougan, former Cambridge man, and now assistant superintendent of schools at Newark, N. J., from losing his position, the school board of Cambridge, Mass., voted to give him a diploma from the local high school, which he attended in former years. A new law in New Jersey would have relieved him of his position but for the action of the board.

Mr. Dougan had never received a diploma from the Cambridge high school, although he had successfully attended Harvard, Cornell and New York Universities, and the Massachusetts Institute of Technology.

—Bridgeport, Conn. Assistant Attorney Henry Greenstein has ruled that the local board of education is obliged to pay William B. Ittner, consulting architect for the Harding High School, the sum of \$7,427 in addition to the \$6,439 received by him when the plans for the building were accepted. The bill of Mr. Ittner brought the total cost for architects' fees up to \$81,797.82 for the building. Mr. Ittner submitted the preliminary plans to the board and collaborated with the associate architects in preparing the complete plans and specifications.

—Knoxville, Tenn. The curtailment of outside activities in the schools has been recommended in a report of five principals, made to the board of education. Among the activities recommended for elimination are music week and music contests, ticket sales for all purposes, patriotic campaigns, contests and contributions, municipal campaigns, and a proposed new banking system. It has been recommended that the three activities of the Junior Red Cross be retained.

—R. T. Whithers, a member of the New Castle, Pa., school board advertised the doings of the board in the local newspapers and paid

for the space used. He proposes to continue this method of keeping the public informed.

—The new members of the Boston, Mass., board of education are Mrs. Jennie Loitman Barron and Francis C. Gray.

—The attendance bureau of the New York City board of education gave away 7,500 pairs of shoes last year to enable indigent pupils to attend school. The fund was raised by entertainments and voluntary subscriptions.

—Mayor James J. Walker of New York City recently outlined at a public dinner his attitude on the schools: "I am a partisan in politics and always will be a partisan as long as I have faith in the principles of my party but I will not bring my party as a party into the department of education," he declared to the applause of the audience. "On the other hand," he continued, "I will not subscribe to the charge that because a man or woman is a member of my party that he or she is not fit to be appointed to a place of trust in the educational system. And while I am willing to say to you publicly that partisan politics must be kept out of the schools I say with equal emphasis that school politics must be kept out of the school system."

—The Haley-Thompson special school district of Chicot County, Ark., recently filed an appeal in the Supreme Court asking a judgment of \$1,507 against W. J. Spalwn, treasurer of the county. It was contended that the amount was due on fraudulent district warrants honored by the treasurer. The Chicot county court, where the case was originally tried, found against the district. In his answer, the treasurer alleged that the vouchers containing the illegal numbers were given in payment of teachers' salaries and valid claims, and asked that the suit be dismissed. The motion was granted by the trial court.

—Bay City, Mich. The ban on married teachers may be taken into the court in the case of Eva Miller Aussem, a grade teacher, who has asked the board for a settlement, charging breach of contract. As Miss Miller, the teacher was under contract, but when she married, the board cancelled the contract.

ROSS

ALL STEEL HEATING BOILERS FOR SCHOOLS

FIVE REASONS
WHY YOU SHOULD
INVESTIGATE THE
ROSS BOILER.

1. **COMPACTNESS**—
Which means a saving
of space in high cost
buildings.

2. **EFFICIENCY**—
Scientific arrangement
of heating surfaces for
maximum absorption of
heat, which means a saving
of fuel.



3. **ACCESSIBILITY**—

The design is such that all parts can be easily cleaned—the tubes can be reached from either head from the outside of the boiler, which means a saving in upkeep.

4. **CONSTRUCTION**—

Made of steel, electrically welded in accordance with American Society of Mechanical Engineers Code for Heating Boilers, which means that school can be held without interruption.

5. **PERFORMANCE**—

Quick steaming qualities are a feature of the Ross Boilers, with a corresponding saving in fuel, as it is not necessary to start fires until a short time before school opens. This means a satisfied janitor.

Our Complete Catalog Sent on Request.

Send Your Plans and Specifications to Our Engineers for Estimates.

The Frost Manufacturing Co.

Galesburg

75 Years of Quality Building

Illinois

Also Builders of the Well Known *Frost* Horizontal Return Tubular Boilers

—The school board of Oak Park, Ill., has been notified by the American Association for the Advancement of Atheism that it will contest the legality of dismissing children from the schools during regular hours to receive instruction in religion. "We will welcome any court test of our right to dismiss pupils at their parents' request for religious instruction," said Supt. William J. Hamilton. "We have been advised by our lawyers and they tell us we would have no right to refuse such requests from parents so long as they do not interfere seriously with their regular school work."

—The Boonton, N. J., school board some months ago dismissed Albert S. Davis, supervisor of schools. An incompatibility had arisen between him and the board. Mr. Davis appealed his case to the state commissioner who re-instated him, holding that the removal was illegal.

—At a conference of Kentucky city and county superintendents, it was resolved, "That we favor the enactment of a law permitting the people of any county by popular vote to consolidate all its school districts, including the county district and any independent graded and city districts operating therein, into one county-wide school system under control of a board of education elected by the county at large and vested with authority adequate for raising the necessary revenue and administering the schools of the county system."

—The school board at Beaver Dam, Wis., has ruled that children may enter the kindergarten at the beginning of the school year nearest their fifth birthday, and the first grade at the beginning of the school year nearest their sixth birthday. Pupils will enter the first grade at the beginning of the school year and no pupil will be expected to be in the kindergarten more than one year.

—The schools of Fairmont, W. Va., under the direction of Supt. Otis G. Wilson, have vaccinated over 1,000 children against diphtheria. In each instance the written consent of the parents was obtained.

—The number of schools in Illinois has been increased by 682 in the last eleven years, according to statistics prepared by State Supt. Francis G. Blair. There were 13,331 school-houses in use in 1913, and in 1924 the number had been increased to 14,013. The number of

teachers was increased by 12,300 in the same period and the number of pupils by 305,823.

In a study of disbursements, it is shown that these increased 750.4 per cent in 1924 over the total of 1913. In the latter year, the disbursements were \$14,490,429, and in 1924 they were \$123,240,829, showing an increase of \$108,750,400.

—A recent monthly bulletin of the board of education at Detroit, Mich., shows that the city is far above the average of other cities in point of attendance of school children of primary and high school grades. It is shown that the percentage of children of high school age attending school is higher than that of any other age in the city, and is more than five times the percentage average of high school attendance for the entire country. Children of 7 years of age in Detroit follow with the next highest percentage of school attendance, which percentage more than doubles the average for the country as a whole.

Statistics on these two age items follow: Seven years old, attending Detroit public schools, 68.6 per cent; not in any school, 7.7 per cent; not in any school in the United States, 16.7 per cent.

Children 15 years old attending Detroit schools, 74.2 per cent; not in any school in Detroit, 5.1 per cent; not in any school in the United States, 27.1 per cent.

There are 316,749 children between the ages of 5 and 19 inclusive. Of these, 177,220 are in public schools, or 55.9 per cent. There are 65,173 in non-public schools, or 20.6 per cent. Approximately one-third of the children of 7 years of age are in non-public schools, and more than one-half of the children of 12 years of age are in non-public schools. Of those pursuing high school work, the school attendance outnumbers the non-public school by three and one-half to one.

CONFERENCE OF CONNECTICUT SCHOOL EXECUTIVES

The annual mid-winter conference of Connecticut school executives was held December 29-31, at the State Capitol, Hartford, Conn.

The speakers at the conference were Mr. J. J. Savitz, Glassboro, N. J., who talked on The Visit; Mr. Julius Warren, Springfield, Mass., who spoke on The Individual Conference Before

and After Visitation; Miss I. Jewell Simpson, Baltimore, Md., who discussed The Teachers' Meeting; Mr. W. Warren, Bridgeport, who talked on High School Problems of Visitation, and Mr. John W. Withers, New York University, who discussed The Development of a Supervisory Program.

THE UTAH SCHOOL BOARD CONVENTION

Twenty-seven of the forty school districts of the state were represented at the convention held by the Utah State School Board Association at Salt Lake City. There were forty-four board members, nineteen clerks and fourteen superintendents.

Two meetings were held, one by the clerks of the boards of education and the other by superintendents and school board members. At the clerks' meeting the following subjects were discussed: "Qualifications of Clerk," "What Constitutes Proper Reports," "The Value of Complete and Accurate Records."

The school boards' session discussed the following: "The Enforcement of the Compulsory School Law," led by C. F. Olson of Hyrum; "Taxation," led by Francis W. Kirkham of Granite; "Suggestive Items That Affect Schools Which May Be Worked Out by Cooperation With the State Farm Bureau," led by LeRoy Richards of Granite.

The president named the following persons on the committee to provide for a state high school athletic board of control: H. K. Merrill of Logan, T. F. Tolhurst of Spanish Fork, P. H. Neely of Coalville, Richard Thorley of Cedar City, C. A. Robertson of Moab, E. M. Tyson of Brigham City, J. C. Swenson of Provo, State Superintendent C. N. Jensen, James E. Moss of Salt Lake, Ray Done of EuOreka, Lewis Peterson of Mount Pleasant, C. Oren Wilson of Salt Lake, and Karl Hopkins of Ogden.

The following legislative committee was appointed: Joseph Skeen of Ogden, John Graham of Fairview, C. F. Olson of Hyrum, Richard A. Thorley of Cedar City, Eli Clayton of American Fork, and John A. Wootton of Heber City.

The officers elected were: President, E. M. Tyson, Brigham City; David Tarbet of Logan, reelected secretary; T. F. Tolhurst of Spanish Fork, first vice-president; C. C. Lockhart of Duchesne, second vice-president; C. A. Robertson of Moab, third vice-president.

Athey

(Patented)

Cloth-Lined Metal Weatherstrip

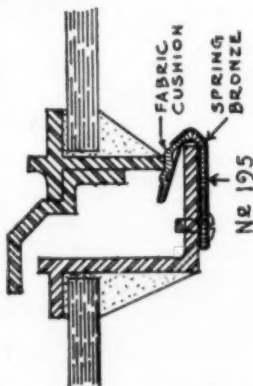
Other Weatherstrip Can't Be as Efficient as the Athey

The most common weatherstrip is a one-piece zinc strip provided with a rib which fits into a slot cut in the edge of the sash. Such strip **can't be effective** because both upper and lower sash are deeply grooved, for one-third of their height, to take care of sash cord—hence such weatherstrip provides no protection for one-third the height of the window. And the part that is "fitted" must be loose enough to allow for the swelling of wood in damp weather.

The two-piece metal weatherstrip provided a vast improvement over the one-piece type. But it has been found that when the two pieces of metal are fitted tight enough to prevent infiltration of air they create too much friction, and the free operation of the sash is retarded when the wood swells.

For Wood or Metal Windows

Sketch shows Athey Cloth-Lined Metal Weatherstrip for drawn steel windows. Notice the **cloth and spring bronze contact**. Athey is the **only** cloth-lined metal weatherstrip made, and experience has proved that a cloth-to-metal contact is the only one that actually "seals" the windows without making them stick.



The patented Athey Cloth-Lined Metal Weatherstrip overcomes all the disadvantages of these other types. For the cloth-to-metal contact provides a perfect "seal" against drafts and dust—yet is sufficiently pliable to prevent the sash from sticking. Furthermore the efficiency of the Athey strip is not dependent upon the fit of the sash. For even when the windows are loose Athey strip provides a perfect seal and also overcomes all rattle.

Write for complete information and prices

Athey Company

6023 West 65th Street - Chicago, Illinois

In Canada: CRESSWELL-McINTOSH, Reg'd.
270 Seigneurs St., Montreal, Que.

Athey Products



Perennial Window Shades Disappearing Partition
Skylight Shades Cloth-Lined Metal Weatherstrips

The DUNHAM

REG. TRADE MARK

HEATING SERVICE

Why is Dunham Heating being so universally adopted by schools in North America?

*Main Avenue High School, San Antonio, Texas.
A Dunham Vacuum Heating Installation with 12,000 sq. ft. of radiation.*



THERE are five excellent reasons why Dunham Heating is finding so wide-spread an acceptance by American school boards, architects, consulting engineers and others responsible for the proper heating of school buildings.

First, because Dunham Steam Heat provides an even, healthful warmth IN EVERY ROOM, instantly available at the turn of a valve, and as easily controlled.

Second, it offers remarkable advantages in flexibility of operation.

Third, because it is a noiseless system.

Fourth, because it is remarkably economical in operation.

Fifth, because it is a system practically devoid of repair costs.

Over sixty branch and local sales offices in the United States and Canada bring Dunham Heating Service as close to your office as your telephone. Consult your telephone directory for the address of our office in your city.

C. A. DUNHAM CO.
230 East Ohio Street, CHICAGO

PERSONAL NEWS OF SUPERINTENDENTS

DR. WEGLEIN HEADS BALTIMORE SCHOOLS

—Dr. David E. Weglein, formerly acting superintendent of schools at Baltimore, Md., has been elected as head of the school system, to succeed Henry S. West.

Dr. Weglein is a graduate of Baltimore City College in the class of 1894, and holds a degree given by Johns Hopkins University in 1897. In 1912 Columbia University gave him an A. M. degree, and at the same time he received a diploma in educational administration from Teachers College.

In the summer of 1914 he was appointed as assistant in educational administration in Teachers College, assisting Dr. George D. Strayer. He then entered Johns Hopkins University and was graduated with the degree of Doctor of Philosophy in 1916. The following year he was appointed instructor at Johns Hopkins from which position he was promoted to associate in education in 1921.

Following three years of experience in the elementary schools of Baltimore, Dr. Weglein was elected first assistant in the teacher training school, where he remained for a year and a half. This was followed with four years in the Baltimore City College, and fourteen and a half years as principal of the Western High School. From this position he was called to the assistant superintendency and given charge of junior and senior high schools in January, 1921. Three years later he became first assistant superintendent, and upon the departure of Mr. West in May, 1925, was placed in entire charge of the schools.

PERSONAL NEWS OF SUPERINTENDENTS

—Mr. J. I. Riddle, formerly principal of the Etowah County High School at Attalla, Ala.,

has been elected superintendent of schools at Tuskegee. The appointment carries a salary of \$3,600 and includes a home for the superintendent.

—A. F. Harman, superintendent of the Montgomery County (Alabama) schools, has been elected president of the Department of Rural Education of the National Education Association.

—Supt. E. R. Whitney of Schenectady, N. Y., has announced his retirement with the close of the school year in June. Mr. G. B. Jeffers, who has been acting as superintendent during the illness of Mr. Whitney, will continue in office for the remainder of the year.

Mr. Whitney completed seventeen years of service in the schools of Schenectady, ten of which he spent as principal of the high school, and seven as superintendent of schools.

—Supt. Ernest P. Simmons of Elliott, Ia., has been offered a new contract covering a two-year term, at a salary of \$3,000 and a bonus provided he remains for the length of his contract. Supt. Simmons is serving his seventh year at Elliott. He is the author of the Simmons spelling scale for secondary schools which is being widely used in Iowa schools.

—Mr. R. W. Cowart, formerly superintendent of schools at Albany, Ala., has resigned to become full-time secretary of the Alabama Education Association. Mr. N. F. Greenhill is now superintendent at Albany.

—Prof. George S. Counts, of the School of Education, Yale University, will become a member of the faculty of the School of Education of the University of Chicago, on July first. Mr. Counts will devote himself to advanced work in educational sociology. He is a graduate of Baker University, holds a degree from the University of Chicago, and has filled various professorships at the University of Delaware, Harris Teachers' College, and the University of Washington. Prof. Counts is the author of various monographs on arithmetic and secondary education and is joint author of a book entitled "Principles of Education."

—Mr. J. H. Waldron, of Ashland, Kans., has been appointed supervisor of instruction in the high school at Fort Smith, Ark. Mr. Elmer Cook has been appointed principal of the high school, succeeding P. N. Bragg.

—Mr. Harold W. Smith has been appointed superintendent of the grammar school at Glendale, Ariz., succeeding Clarence McKee.

—Mr. H. G. Madden of Nogales, Ariz., has been elected superintendent of schools at Winslow.

—Mr. E. J. Snyder, of Bisbee, Ariz., has become principal of the high school at Yuma.

—Mr. Grady Gammage, formerly superintendent of schools at Winslow, Ariz., has been elected vice-president of the Northern Arizona Teachers' College and director of the training school.

—Mr. F. W. Rose, formerly principal of the high school at Nogales, Ariz., has been elected superintendent of schools.

—Mr. E. W. Montgomery, of Bedford, Ind., has been elected superintendent of the high school, Phoenix, Ariz.

—Mr. M. R. Dodd, formerly of Los Angeles, Calif., has been elected superintendent of schools at Florence, Ariz.

—Mr. J. G. Chapman, of Alamogordo, N. Mex., has been elected superintendent of schools at Holbrook.

—The new school about to be completed at Plainfield, N. J., has been named by the board of education as the Maxson School. This was done in recognition of the services of Dr. Henry M. Maxson, superintendent of Schools. President Frank J. Hubbard in appraising Dr. Maxson of the honor conferred upon him stated that it was in recognition "of a full third of a century of work devoted to the Plainfield schools which has resulted in placing them on a high plane of service and excellence."

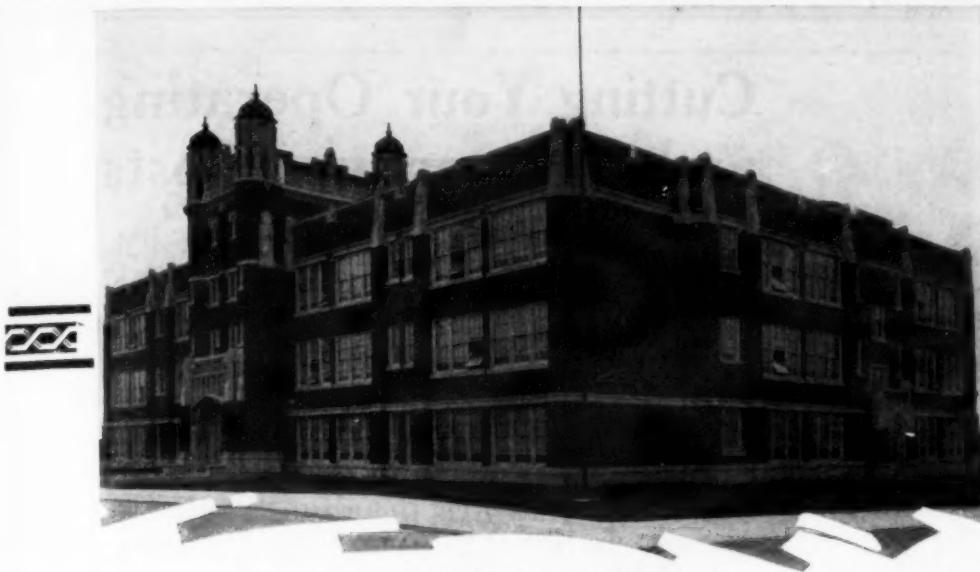
—Mr. Daniel G. Aldrich, a former principal at Providence, R. I., has been elected director of attendance and discipline, at a salary of \$4,000.

—Mr. Harlan D. Crowell has been made assistant superintendent of elementary schools at Providence, R. I., at a salary of \$5,500 a year.

—Mr. Augustus F. Rose has been appointed director of manual arts at Providence, R. I., at a salary of \$4,000.

—Mr. R. H. Webster, deputy superintendent of schools of San Francisco, Calif., in concluding forty years of service, delivered his farewell address before the board of education, in which

(Concluded on Page 127)



RAUB SCHOOL, ALLENTOWN, PA.
Jacoby & Everett, Architects, Allentown, Pa.

"WILLIAMS" Reversible Window Fixtures

*Improved ventilation
and shading facilities*

OUTSTANDING FEATURES OF "WILLIAMS" REVERSIBLE WINDOW EQUIPMENT.



- Ideal Overhead Ventilation
- Reversibility for Inside Cleaning
- Greater Light Area
- More Weathertight Construction
- Better Shading Facilities
- Simplified Frame Construction
- Weightless Windows
- Write for list of installations near you

The sash units of the "Williams" Plank Frame Reversible Window Fixtures operate independently and are opened to any desired degree by simply tilting the sash inward. Consequently, when the windows in this modern school building are operated the incoming air is deflected upward, providing an ideal type of overhead ventilation—minus drafts. The impetus now being given this type of ventilation further emphasizes the soundness of the basic principles underlying the design and operation of the "Williams" device. Better shading facilities are also afforded, where "Williams" Reversible Window equipment is installed, for the shades may be drawn to any position without interfering in any way with the free circulation of fresh air.

Let us send you further particulars.

THE WILLIAMS PIVOT SASH CO.
East 37th St. and Perkins Ave.
Cleveland, Ohio.



SIMPLIFIES CLEANING
With "Williams" Reversible Window Fixtures cleaning is done entirely from the inside.

(Concluded from Page 124)

he urged the members to formulate methods for raising the standards of education in public schools. Mr. Webster was the guest of honor at a luncheon tendered by the board of education following the meeting. Mr. Webster was graduated from the University of California in 1877 and first taught in San Francisco as a substitute in the girls' high school.

—Mr. R. Owens, principal of the high school at Pine Bluff, Ark., became state high school supervisor on September 1st. Mr. Henry Dial succeeds Mr. Owens as high school principal.

—Mr. P. N. Bragg, of Fort Smith, Ark., has been elected superintendent of schools at Texarkana.

—Supt. F. H. Beede, of New Haven, Conn., has been unanimously reelected for another five years, beginning with September, 1926. The appointment carries with it an annual increase of \$250.

Mr. Beede has been superintendent in New Haven for the past 25 years, being appointed in 1900. He is a graduate of Yale University, in the class of 1883. His educational career has been varied and interesting, ranging from teaching in elementary and high schools, to superintendent of schools and lecturer on school administration at Yale University. The present appointment is for a sixth consecutive term of five years.

—J. L. Bond, superintendent of the Muscogee County, Ga., schools, has tendered his resignation, to take effect January first.

—The name of Robert B. Irons, superintendent of schools at Winona, Minn., has been dropped from the list of eligibles to fill the vacancy in the Virginia schools, due to the failure of the former school board to release the superintendent. The Winona school board was unwilling to release Supt. Irons due to the fact that the first unit of a million-dollar-school construction program is nearing completion and a new junior high school system is about to be put into operation.

—Mr. E. Everett Howton of Princeton, Ky., has been elected president of the First District Educational Association of Kentucky.

—Mr. O. H. Bennett, of the Westwood high school, Cincinnati, O., has been elected president of the Western Ohio Superintendents' Association to succeed H. C. Aultman. Supt. P. G. Meranda of Camden, was named a member of the district board of control.

—Supt. J. N. Hamilton, for the last ten years in charge of the public schools at Ponca City, Okla., has resigned the superintendency to take charge of the movement for the care of crippled children in Oklahoma. Mr. Hamilton will make his headquarters in Oklahoma City.

—Supt. John T. Hefley, formerly of Henryetta, succeeds J. N. Hamilton as the new superintendent of schools at Ponca City, Okla. He received his A.B. degree from the University of Oklahoma in 1901 and completed his M.A. degree in the University of Chicago school of education in 1925.

The state director of vocational education for Missouri, Dr. G. W. Reavis, has announced his candidacy for the office of state superintendent.

—Supt. W. W. Bennett of Center, Tex., is a candidate for the state superintendency of schools.

—James M. Hughes succeeds B. G. Graham as superintendent of the New Castle, Pa., schools.

NEWS OF SCHOOL OFFICIALS

—Findlay, O. Two new board members took their places in January. Mr. Frank McManness succeeds Mrs. C. C. Peale. The other member is D. S. Finton.

—Mr. William T. Gordon has been elected president of the board of education at Rochester, Pa. Mrs. Clara Hetzler has been elected vice-president, and Mr. Frank Lawson secretary.

—Mr. Homer Zenor and Mr. H. P. Martin, of Terre Haute, Ind., each began a four-year term of service on the school board, beginning January first. The new members succeeded Mrs. B. B. White and Mr. Joe Duffy, who retired on December 31, 1925.

—Mr. Samuel E. Smith has been elected president, and Dr. W. C. Wetzel, vice-president, of the school board at Shamokin, Pa.

—Mr. Chas. W. Isham has been appointed as a new member on the school board of Flagstaff, Ariz. Mr. Isham succeeds Dr. Slipher.

—Four new members have been appointed to the school board at Rock Springs, Wyo. Mr.

G. H. Breihan has been elected as president, and Mr. N. B. Ross as secretary.

—Mr. James J. Mahar, formerly schoolhouse commissioner of Boston, Mass., has been unanimously appointed domestic engineer of the Boston school system at a salary of \$4,000 per annum. Mr. Mahar, who began his new duties immediately, will work in cooperation with A. M. Sullivan, business agent of the Boston schools. The position was created in the interest of better school organization and for the purpose of affording effective measures for reducing the fuel and light requirements of the schools. It is estimated these items cost during the last financial year considerably more than \$400,000.

Mr. Mahar is a graduate of the Massachusetts Institute of Technology and is a mechanical engineer by profession. He entered the schoolhouse department in 1902, serving as heating and ventilating engineer for a number of years. In 1918 he was appointed schoolhouse commissioner by the Mayor, which position he held until July of the present year.

—Miss Mary Shipp Sanders, for several years superintendent of schools of Williamson County, Tex., has been appointed third assistant state superintendent. The appointment carries with it supervision of the rural schools of the state.

—Supt. John Dietrich has been unanimously reelected as head of the schools of Helena, Mont., for a three-year term.

—Mr. N. B. Corthell, formerly at the high school in Saugus, Mass., has accepted a position in the Carter School at Chelsea.

—Supt. G. W. Fallon, of Gettysburg, S. D., has been reelected for another period of three years.

—Mr. W. G. Bolcom, of the University of Minnesota faculty, has been elected superintendent of schools at Virginia, Minn. Mr. Bolcom succeeds E. T. Duffield.

—A gradual increase in teachers' salaries until a maximum of \$2,000 a year is reached for grade teachers, and a maximum of \$3,000 for high school teachers has been recommended in one of sixteen resolutions recently adopted by officers of the Kane County and Kendall County (Illinois) school officers' association.

YOUNG

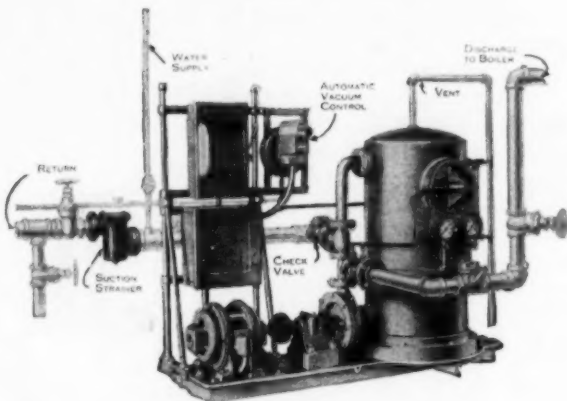
CENTRIFUGAL VACUUM
AND BOILER FEED

PUMPS

Bulletin No. 5 describing the construction and application of Young Pumps will be mailed upon request.



Size V2 for 16,000 square feet of radiation, equipped for continuous operation, requiring only 1½ H.P. Motor when pulling 10 inches vacuum and discharging against 20 pounds pressure at pump. Illustration shows unit as shipped from factory.



Cutting Your Operating and Maintenance Costs

PLENTY of air and water capacity produced at a **very low** actual power consumption give the utmost of economy in the operating cost of a Young Pump.

Owing to the few wearing parts and the simplicity of construction, maintenance costs are practically eliminated. In operation the Young Pump requires practically no attention, only the motor and pump bearings needing oil occasionally. For **your** building, no matter how large it may be, or how complex its heating layout, no other Pump will give you quite the dependability which spells economy that is found in Young Pumps.

YOUNG Pump COMPANY

230 EAST OHIO STREET

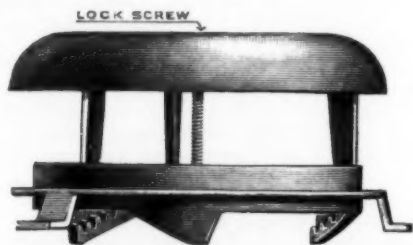
CHICAGO

Represented in All Principal Cities

Factory: Michigan City, Indiana

Nu-Notch
REG. U.S. PAT. OFF.

Mushroom Air Diffusers



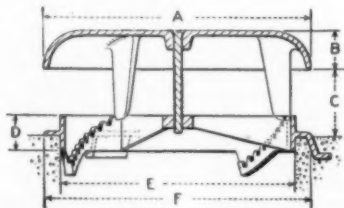
Wide
Open

are being used throughout the nation to produce in

School Auditoriums

the same comfortable conditions for audiences, as are found in the modern theatres using this latest type of fresh air diffuser or under seat vent.

May be used for either intake or exhaust units.



Made only by

KNOWLES MUSHROOM VENTILATOR CO.

202-204 Franklin St., New York



HIGH SCHOOL, FREMONT, NEBRASKA
A. H. Dyer, Architect

Seven 54-inch "GLOBE" Ventilators

provide pure air throughout the seasons for this school building.

Pure air is imperative both for the physical welfare and the mental advancement of the student.

The continued use of "GLOBE" Ventilators on schools in all climates speaks for their efficiency.

First cost low—no operating expense.

Complete Information
Upon Request

GLOBE VENTILATOR CO.

Dept. J

Troy, N. Y.

Modern Schoolroom Heating and Ventilating

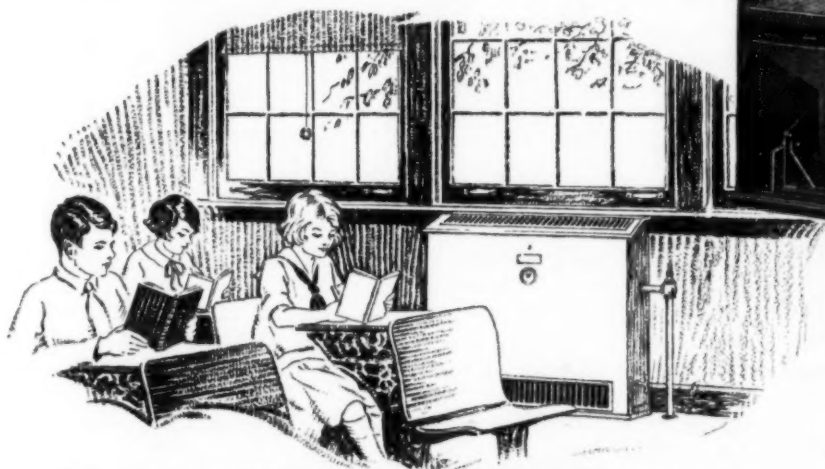
THE PeerVent Unit System of Heating and Ventilating is especially advantageous in school buildings.

Each room gets an independent and dependable supply of fresh air.

Each room is heated separately, according to its needs, regardless of conditions in other rooms.

Each room is ventilated and heated without waste.

To these quite obvious features the PeerVent System adds many technical advantages—fully described in our catalogue—yours on request.



PeerVent Unit with the front plate removed, showing (1) the fans which draw in fresh air from out-of-doors, (2) the air filter, and (3) the remarkable Peerfin Radiator which heats the air to any required temperature. Control of room temperature is obtained by a simple mixing damper (not illustrated) which by-passes some or all of the incoming air around the radiator, or directs it all through the radiator, as needed.

PEERLESS UNIT VENTILATION CO., INC.
Skillman Avenue and Hulst Street
Long Island City, N. Y.

808 Monadnock Bldg.
CHICAGO

100 Boylston St.
BOSTON

196 Worthington St.
SPRINGFIELD, MASS.

339 Second Avenue
PITTSBURGH

1836 Euclid Avenue
CLEVELAND

723 Lafayette Bldg.
DETROIT

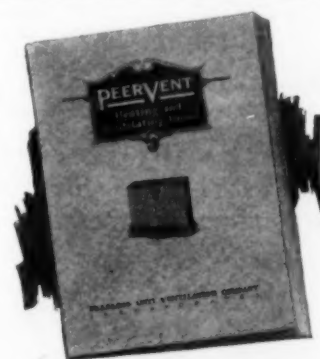
520 Securities Bldg.
DES MOINES

927 Board of Trade Bldg.
PORTLAND, ORE.

77 York St.
TORONTO, CANADA

PEERVENT

Heating and Ventilating Units



Write for Catalogue
(on your letterhead, please)

FOR OLD BUILDINGS AS WELL AS NEW.—PeerVent Units are as suitable for old school buildings as for new ones. Any number of units needed can be installed, either to supplement or to supplant the existing system. A few such installations are illustrated in our catalogue.

Accounting for Student Funds

Carl Burris, Superintendent, Sloan, Iowa

In the modern high school there are various student organizations which have their own officers, transact their own business, and generally function in wholesome student activities. In a year's time they handle sums of money which often run into four figures. These organizations have a right to exist if they contribute to the completeness of the student life and should be self-governing as far as possible. However, experience leads us to ask: To what extent should student organizations handle their own funds? What should be their degree of independence from faculty or school board supervision?

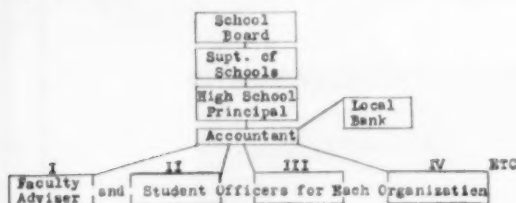


FIGURE I.

It should be the desire of all student organizations that the funds handled by its student officers be accounted for accurately. It should be a source of pride that the money of any club, society, or class, be carefully handled and that it is sufficient to pay all obligations. Also the faculty should desire that all student funds be accounted for and be sufficient to pay all bills. Often teacher sponsors are called on to untangle financial difficulties for which they are indirectly responsible. Then, too, the school board is concerned that no complications arise in clearing up "money tangles" after school has closed for the summer vacation. Sometimes they are called on to pay the bills of some class and naturally they wonder why those bills are unpaid if the bills are fair and just. Should the board pay the bills?

If there is any doubt as to the benefits of using a system to account for student funds, no matter the size of the high school, please consider reasons why some such system is desirable, and even imperative, for the smooth and efficient operation of student organizations which handle money:

(1) It places the handling of funds on a business basis.

(2) It lessens possibility of contracting debts which cannot be paid.
(3) It lessens the chance of misuse of funds by dishonesty or carelessness.

(4) It informs the school board and all concerned as to the financial condition of student organizations.

(5) It expedites the payment of obligations. This system is not complicated; is adapted to any size school; can be installed and maintained with very small expense. Figure I shows the plan of organization of personnel to operate this system.

The Accountant may be the principal, a commercial teacher, or any competent teacher. The accountant receives all funds; deposits funds in an approved bank; keeps a double entry book; pays all bills by check; makes regular reports in balance sheet form to the board and to student organizations. He makes vouchers for all receipts and expenditures covering each period for which a report is made. Annually his books, vouchers, and checks are audited by a committee appointed from the school board.

STUDENT ACTIVITY FUND	
Debit Voucher No. _____	
From _____	to _____
(Both dates inclusive)	
Organization or Fund _____	
To _____	
For _____	
Amount \$ _____	
Check No. _____	
Audited (Date) _____	
By _____	
Remarks _____	

FIGURE III.

Each student organization has a faculty adviser who must approve each bill for payment and sign all orders on the Accountant. The organization treasurer keeps his own books. He turns in to the accountant all money, taking a receipt therefor. Figure II shows an order on the accountant. These orders should be numbered and stubs retained in the order book.

Figure III is the outside of the debit voucher form on which the accountant makes notations necessary to explain the expenditure covered by the voucher. Inside the form are pasted: (1) The signed order from the organization; (2) the cancelled check used to pay the bill; (3) the bill for goods or services (received if possible).

STUDENT ACTIVITY FUND	
Credit Voucher No. _____	
From _____	to _____
(Both dates inclusive)	
Received from _____	
Treasurer _____	
For credit to _____	
Organization or Fund _____	
Amount \$ _____	
Source of money _____	
Audited (Date) _____	
By _____	
Remarks _____	

FIGURE IV.

Figure IV shows a credit voucher form to be used to explain from what source funds were received and how credit was entered on the ledger.

Figure V is the form of receipt given when the accountant receives money from any fund or organization.

The accountant opens in his ledger an account for: 1. Each student organization. 2. The bank in which money is deposited. (Student Activity Fund.) 3. A cash account. (If it is necessary to keep any cash on hand.)

Figure VI shows a sample financial statement. The bank pass book should be balanced (Concluded on Page 133)

PAY ORDER		BLANK HIGH SCHOOL	
No. _____	Date _____	No. _____	Date _____
Pay to _____	Pay Order _____	HIGH SCHOOL ACCOUNTANT of Blank High School, Pay to _____	
For _____	_____ Dollars	_____ Dollars	
Date of invoice or purchase _____	For attached hereto. _____ invoice is _____	Approved by: _____ Treasurer _____	
(stub)	Faculty Adviser _____	Organization _____	

FIGURE II.

ATHLETIC FUND					
DEBIT			CREDIT		
Oct. 24	Lowe and Campbell	45.00	Sept. 30	Balance	53.00
Oct. 31	Credit Balance	94.00	Oct. 12	Football game	86.00
		139.00	Oct. 31	Balance	94.00

FIGURE VII.

BLANK NATIONAL BANK (STUDENT ACTIVITY FUND)					
DEBIT			CREDIT		
Sept. 30	Balance	90.98	Oct. 31	Cancelled check No. 301	45.00
Oct. 12	Deposit	86.00	Oct. 31	Dr. Balance	161.98
Oct. 16	Deposit	30.00			206.98
Oct. 31	Balance	161.98			

FIGURE VIII.

FINANCIAL STATEMENT STUDENT ACTIVITY FUND				
Oct. 31, 1925				
ACCOUNT	DEBIT	CREDIT	BALANCE	
			DR.	CR.
DECLAMATORY CLUB				
Sept. 30, Bal.		25.98		
Oct. 31, Bal.				25.98
ATHLETIC FUND				
Sept. 30, Bal.		53.00		
Oct. 12, Cash - game		86.00		
Oct. 24, Lowe and Campbell (301)	45.00			
Oct. 31, Balance				94.00
SENIOR CLASS				
Sept. 30, Bal.		12.00		
Oct. 16, Cash - class dues		30.00		
Oct. 29, Jones and Co. (302)	1.00			
Oct. 31, Bal.				41.00
BLANK NATIONAL BANK (STUDENT ACTIVITY FUND)				
Sept. 30, Bal.	90.98			
Oct. 12, Deposit	86.00			
Oct. 16, Deposit	30.00			
Oct. 31, Cancelled check	45.00			
	252.98	251.98	161.98	160.98
Less outstanding check				
Oct. 29, Check. No. 302	1.00		1.00	
	251.98	251.98	160.98	160.98
Accountant _____				

FIGURE VI.

Recent Contracts Secured by VAN

Hollywood Hotel
Hollywood by the Sea,
Florida

Ambassador Hotel
Palm Beach, Florida

Fred Harvey System
Union Station,
Chicago, Ill.

Sarasota Terrace
Sarasota, Florida

Neil House
Columbus, Ohio

Hollenden Hotel
Cleveland Ohio

Holman Hotel
Athens, Ga.

400 page
catalog
on request

CHICAGO
LOUISVILLE
DETROIT
PITTSBURGH
BUFFALO

Nestled among the gorgeous live oaks at Orlando, Florida, is the HOTEL WYOMING

in which

*Van Equipment for the
Preparation & Serving of Food*

has been installed.

Like the long lived oaks, Van Equipment was selected because of

"That Enduring Quality"

A quality which has been maintained for more than
three-quarters of a century.

The John Van Range Co.
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD
Cincinnati

Southern Display Rooms, 215 SPRING ST., Atlanta, Ga.

Our Engineering
service is at the
disposal of archi-
tects and those
who contemplate
installing new
equipment.

NEW ORLEANS
MUSKOGEE
KANSAS CITY
CLEVELAND
ATLANTA

(Concluded from Page 130)

by the bank, and the bank balance on the date of the financial statement must agree with the accountant's balance. He should clip out from the statement that part which concerns an organization and present it to the faculty adviser, who compares it with the treasurer's report for that date.

RECEIVED FROM		Date	No.
Treasurer		Organization	
Source of Money		Dollars \$	
(Make in Duplicate)		Accountant	

FIGURE V.

To make this article of more value to those who are not familiar with keeping accounts, but who may desire to adopt this system, the rules are repeated here:

- (1) Credit an account when it has given an amount to the *Student Activity Fund*.
- (2) Debit an account when it has received a benefit from the *Student Activity Fund*, i. e., when a bill has been paid for that account.
- (3) When an entry is made in the credit column, a like amount must be entered in the debit column. For example, in Fig. VI—\$86.00 was credited on Oct. 12 to the *Athletic Fund* and was charged (debited) against the *National Bank, Student Activity Fund*, as a deposit.
- (4) When closing accounts at the end of month, preparatory to making a balance sheet statement, total the debit and credit columns and indicate the balance on that date. After that you may make entries under that account for the next period.
- (5) Number your checks and fill in all stubs.

In Figure VII we have the *Athletic* account showing the ruling and entries for October. Figure VIII shows the *National Bank* account for the same month.

SCHOOLHOUSE DEDICATIONS

—The principal speakers at the dedication of the new school at District 16 near Clarksville, Tenn., were P. L. Harned, commissioner of education, W. A. Bass, high school inspector, and A. W. Jobe, county superintendent.

—The new Lincoln junior high school, Stanwood, Washington, was opened with an address by J. A. Jacobson, county superintendent, and A. W. Bush, superintendent of the Stanwood schools.

—The new high school auditorium at Ludington, Michigan, was opened with an elaborate program. Dr. H. E. Hoffman, secretary of the board, presented the building. President E. C. Warriner of the Central Michigan state normal school was the principal speaker. Superintendent H. E. Waits presided.

—The new Hartwell school at Cincinnati, Ohio, opened with addresses by Superintendent Randall J. Condon and Architect S. W. Garber. President Samuel Ach of the board of education made the presentation speech.

—Dedicatory exercises were held in January for the Donnell and Glenwood junior high schools at Findlay, O.

—The splendid new high school at Frankfort, Ky., was dedicated on December 14th, with suitable exercises. Mr. L. F. Johnson of the city schools, gave a brief account of recent progress in the school system, and Dr. Frank L. McVey, of the University of Kentucky, gave an address. President H. V. McChesney of the board of education, presented the building, and the same was accepted on the part of the student body by the president of the senior class. The Frankfort high school is accredited as a Class A high school by the southern association, and is carrying out 100 per cent efficient work in all departments.

—The Davy Crockett Junior High School at Palestine, Tex., was formally opened on November 20th, following the completion of a dedicatory program. The building contains 19 classrooms, a library and a large auditorium. It was

planned by T. S. Maffit, of Palestine, and was erected by Campbell & White, of Cooper, Tex.

—The M. S. Hershey junior-senior high school, at Hershey, Pa., was recently dedicated with appropriate exercises. The school is the gift of Mr. M. S. Hershey, president of the Hershey Chocolate Co., and cost, complete, about \$900,000. The school is located only two blocks from the Hershey Company's plant and has been turned over to the county for the use of the children in the community.

—Dale McCormick, president of the school board, presided at the dedication of the new \$75,000 school at Sunbury, Ohio. C. W. Cookson delivered the principal address.

—The new \$100,000 high school at Kewaskum, Wisconsin, was opened with short addresses by Dr. E. M. Morganroth, president of the school board and C. W. Nodolp, principal. The dedicatory address was delivered by Asa M. Royce of the Platteville normal school.

—The dedicatory exercises of the new Lincoln school at East Stanwood, Washington, were directed by Superintendent A. A. Mykland. The address of the day was delivered by J. A. Jacobson, county superintendent. The building cost \$30,373. Morrison and Stimson were the architects.

The opening of the new \$105,000 grammar school at Coventry, R. I., was attended with dedicatory ceremonies in which Walter E. Ranger, state school commissioner, was the principal speaker. H. S. Fillmore, president of the board of education, presided.

—An interesting program was provided by Supt. J. V. Nelson for the opening of the new school at Bellaire, W. Va. H. P. Hodgewig, president of the board of education, presided. The speakers were K. G. Cooper, member of the board, and J. A. Jackson, former superintendent.

—School has been opened in Carro Gordo county's finest rural school in Bath township No. 9, in Iowa. The school has just been completed at a cost of \$7,000. It is built of brick and contains a library, rest room, inside wash rooms and a play room in the basement.

—At Oceanside, N. Y., \$190,500 will be expended for three sites and three schools, and for the acquisition of additional land for the high school.



GYMNASIUM OF EAST SIDE HIGH SCHOOL, SHOWING PAIR OF
ACME VERTICAL PARTITIONS, TYPE "J"
SIZE 90'-0" x 22'-0"
FRANK RILEY, ARCHITECT, MADISON, WIS.

ACME VERTICAL PARTITIONS conserve floor space, are relatively sound-proof and are guaranteed to withstand normal gymnasium usage.

The ease of operation, which has always characterized Acme Partitions, is fully maintained in type "J," notwithstanding the large sizes in which this type is usually built.

The use of Acme Rolling Wood Partitions, in either the horizontal or vertical types, assures permanent ease of operation.

Send for complete details

ACME PARTITION CO., INC. 3539 Peralta Street,
Oakland, California

Representatives in principal cities.

EACH UNIT OVER 1½ TONS

**—Yet a 10-year-old boy
operates them with ease.**

The ACME VERTICAL PARTITIONS

pictured here are the largest rolling partitions which have ever been built. The construction which makes partitions of this large size possible has not been evolved in a day. It is the final result of a gradual development, covering a dozen or more years. During these years we have frequently been asked to furnish Acme Vertical Partitions in constantly increasing sizes. The final development is type "J," in which the weight of the partition is carried on an overhead track and the operation into and out of coil box is by hand crank, conveniently located on the side of the coil box.

BOARD OF EDUCATION

CITY OF
MADISON, WISCONSIN
22 WEST DAYTON STREET

December 12 1925

Acme Partition Company
3535 Peralta Street
Oakland, California

Gentlemen: Attention Mr W C Grant

In compliance with my promise of a few weeks ago, I am pleased to advance you information on the Acme partition that was installed in the East Side high school. The doors at this time, and for some time past, have operated very successfully. Any child of high school age may easily operate either of the doors. So far I have no reason to become alarmed that the doors will not continue to operate successfully in the future.

Yours very truly

MEJ M

Supervisor of Buildings
and Grounds

SHALL MEDICAL INSPECTION INCLUDE THE CORRECTION OF PHYSICAL DEFECTS?

School authorities in many cities have undertaken the expansion of their medical and dental clinics without consideration of proper policies. They seem to misunderstand the proper limits of medical service in the school. In this connection a recent statement of Dr. William A. Howe, Chief of the Medical Inspection Bureau of the New York State Department of Education, is valuable in that it clearly defines the limits of a democratic policy of school medical inspection. This policy at once avoids the dangers of socializing medicine on the one hand, and of permitting the schools to step beyond the reasonable bounds of educational service. It recognizes also the proper function of local health authorities.

We are frequently asked to state the position of the State Department of Education relative to treatment by school authorities of physical defects found among school children. Some confusion has also arisen regarding the attitude of school authorities in the matter of the prevention of diphtheria. For these reasons it seems as though the following statement might be opportune and helpful to the physicians and dentists of the state.

We are and always have been opposed to anything resembling so-called "State Medicine." We do not feel that it is the function of the educational authorities to practice medicine or dentistry by using school medical inspectors or dentists to render the services that should be given by practicing physicians and dentists. There are, of course, instances throughout the state in which first aid attention is given to school children but in every instance we endeavor to refer these children through the parents to either the family physician or dentist for treatment. It is rather the function of school authorities by means of school medical inspection to find physical and dental defects among school children and to notify parents of such defects and to advise that the family physician or dentist should be consulted as to treatment. Our system of school medical inspection is one of detection rather than treatment of physical defects. It might even be said to be one of production or stimulation of medical and dental

service rather than one of participation in treatment. To be sure we endeavor to teach and train children to keep well, but in doing this we look to the medical and dental profession to assist us.

In the preventive measures of vaccination we always follow the lead of the State Department of Health. We know of no better or safer guide. We have repeatedly urged these measures and have favored the utilization of school buildings when suitable facilities were available and where local physicians would unite with medical inspector and health officer in rendering such services. This is being done in many communities throughout the state and with gratifying results. It is our desire to see it continued and extended. School authorities appreciate that most of the success of school medical inspection and health service is due to the splendid co-operation that exists in the medical and dental professions to conserve the health of the school child.

CHILDREN UNDER SCHOOL AGE SUFFER FROM DEFECTIVE VISION

A recent report of the Eyesight Conservation Council of America on the results of eye tests conducted in Gary, Ind., by federal investigators shows that one-third of the 2,044 children under school age examined suffer from defective vision. The results are contained in a report on the Gary experiments made to Secretary of Labor James J. Davis, a member of the Council's board of counselors.

Complete physical examinations were made of 994 infants under 2 years of age, and of 3,125 children whose ages ranged from 2 to 7 years. In both groups, the distribution of sex was fairly even. In analyzing the facts obtained, the Council holds that the time to begin to preserve eyesight is at birth, pointing out that rattles and other toys are common sources of infant eye strain.

Out of the 2,044 children given vision tests, slightly more than one-third, or 36.1 per cent, showed defective sight of varying degrees, with apparently no significant relation to age, although those in the fifth year showed a slightly higher per cent than any of the others.

In 108 cases, or 5.3 per cent of the number given tests, the vision was seriously defective

in both eyes, and the need for glasses was imperative, although only ten per cent of these children urgently in need of glasses were wearing them. There was a large proportion of cross-eyed children, actually 2.4 per cent of all the children, but here again corrective glasses for this defect were worn by only one-seventh of those with this defect. Only one boy, out of 33 with cross-eyes, was wearing glasses.

It is apparently impossible to obtain data regarding vision in the group of 994 infants under 2 years of age by the use of the methods employed; but 23 infants, or 2.3 per cent, plainly showed eye defects, and the proportion steadily increased with age.

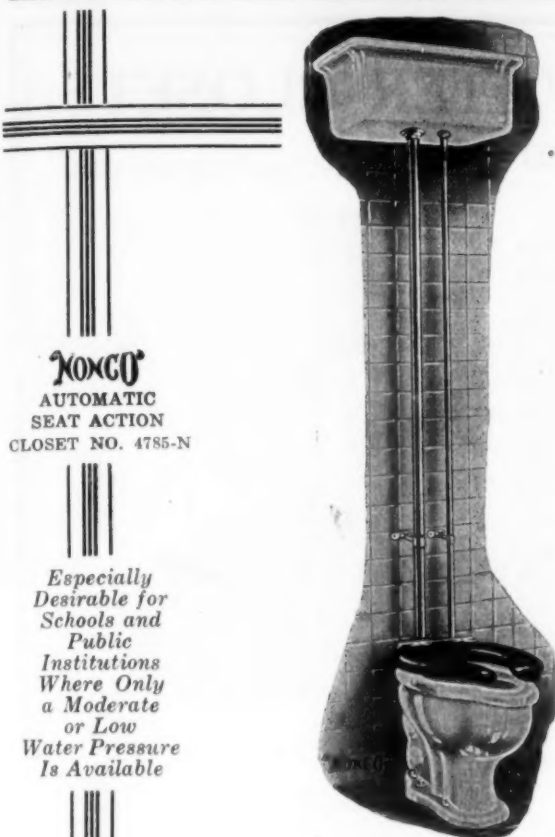
The Council maintains that in order that school children may have good eyesight, it is necessary that proper care be taken of the eyes of the pre-school child in the home. The baby's eyes should never be exposed to the direct rays of the sun. Toys, games, puzzles and picture books used by children should be large and clear. Inadequate illumination in many homes also inflicts severe strain upon the immature eyes of children. Unshaded, glaring light is just as harmful as insufficient light. A child who starts out handicapped by poor or painful vision has a constant and losing struggle.

HYGIENE AND SANITATION

—Local physicians and nurses recently co-operated with the health officer at Niles, Mich., in administering toxin-antitoxin to the 1,200 school children, immunizing them against diphtheria. The work was completed before any serious outbreak of diphtheria and was carried out by the physicians who donated their services for the purpose.

—Dr. Charles H. Keene recently resigned as director of health education in the Pennsylvania department of public instruction to accept the position of professor of hygiene at the University of Buffalo.

—Physique of school children in relation to their educational achievement was made the subject of a recent study in Manchester, England. Out of 85 children of good scholarship, only two were below the average in physique, but out of 171 poor students, 68, or nearly 40 per cent, were below the average in bodily measurements.



"Noxco"
PLUMBING
FIXTURES

Prestige, built on a half century of satisfactory service, attests most forcibly to the dependability of **Noxco** plumbing fixtures.

As nearly perfect, mechanically, as human skill and knowledge can make them, neat in appearance and absolutely sanitary in every respect, their installation is a positive assurance of absolute satisfaction and years of efficient uninterrupted service.

Noxco experts are always at your service, and will be pleased to offer suggestions on any and all your plumbing problems. No obligation.

N. O. NELSON MFG. CO.

*Pioneer Manufacturers of Plumbing Fixtures
for Schools*

MAIN OFFICE: ST. LOUIS, MISSOURI

EDWARDSVILLE, ILL. FACTORIES: NOBLESVILLE, IND. BESSEMER, ALA.

BRANCHES:
Davenport, Iowa Birmingham, Ala.
Pueblo, Colo. Los Angeles, Calif.
Houston, Tex. Memphis, Tenn.
Little Rock, Ark. Dallas, Tex.
Salt Lake City, Utah



A QUARTER OF A CENTURY IN SCHOOL ADMINISTRATION

(Concluded from Page 40)

superficial when it comes to evaluating the efficiency of a state educational system to the individual child. Moreover, one cannot with any degree of certainty specify to what extent a longer school term, better buildings, more efficient teachers, or even enriched curricula, are due to greater efficiency in the state department of education. Added efficiency in the state department, however, should make a difference. Hence it will be of value to consider a few of the data which may be reduced to comparable figures. Table III shows tersely the standing of the country in 1900 and in 1920 on several significant factors which may be taken as criteria of educational efficiency.

TABLE III. STATUS OF THE COUNTRY ON SEVERAL CRITERIA WHICH ARE INDICATIVE OF EDUCATIONAL EFFICIENCY

	1900			1920		
	Poorest State	Average of U. S.	Best State	Poorest State	Average of U. S.	Best State
Average length of school term (days).....	71	144	189	110a	164a	194a
Per cent of school population enrolled in public schools.....	43.6	72.4	89.5	63.5	77.8	100.0
Per cent average daily attendance of pupils enrolled in P. S. 51.7	68.6	79.1	60.4	79.2	90.4	100.0
Per cent high school enrollment is of total P. S. enrollment..	0.2	3.4	7.6	2.2	8.6	14.9
Per cent of population literate.....	61.5	89.3	97.7	81.9	94.0	98.9
Expenditure for public education per pupil in average daily attendance	\$4.44	\$20.22	\$47.81	\$19.43	\$64.16	\$136.56

On every one of the six criteria used in this table, it will be observed, there was improvement in the average for the country between 1900 and 1920. Moreover, there was also improvement on every one of them by the state showing the poorest record, and by the one showing the best record in two years. Some of the advancement was small, owing to the former degree of efficiency, as well as the character of the particular criterion, but all of them are significant and merit recognition.

Improved efficiency, as already stated, may not be due alone, or even to a great extent, to an improved organization in the state department of education, but it must also be observed

that since most changes in organization were effected after 1910, the present organizations have not had adequate time to show fully their influence upon these factors by 1920. In the course of another decade, or quarter century, superior organizations should be better able to show much greater improvements because of having had an early start in the period and, therefore, a longer time to effect improvements.

AN ARGUMENT FOR SUPERVISION

(Concluded from Page 43)

to be brought in from a foreign country and permitted to manipulate our teaching staff to suit his fancy. Nevertheless, does not this little fable teach us something? Ought we not, as a people, to do for ourselves what we have just imagined that this tradition-free superintendent might do

for us? Can we not lay aside our prepossessions to the extent of recognizing the insufficiency of our present major approach to the problem of securing efficient teaching, and, for a time at any rate, put an emphasis that it has never had before upon the need for more and better supervision?

TEACHING VERSUS TESTING

(Concluded from Page 47)

diagnostic testing, and provide means for correction of specific errors after every effort has been expended to prevent mistakes in learning. We shall surely come to put more emphasis upon accuracy. Then we shall consider it better to learn a few things well than to mess with many.

As a result, our children will develop speed as they are less and less impeded by mistakes. One reason why our children learn so slowly is because we try to make them go so fast.

SCHOOL BUILDING MAINTENANCE

(Continued from Page 52)

ing around sand boxes should be kept in repair as a child falling on a broken curbing may become injured.

Roofs. Roof repair is second cousin to plaster repair. Frequent inspections should reveal potential leaks before they occur.

Worn out sash cord may let a window fall on a teacher's hand.

Replacement of window glass is, of course, essential. On the playground side much glass may be saved by installing coarse meshed screens.

Sidewalks constructed of brick eventually get uneven from settling or the pressure of tree roots.

The upkeep of sewing machines and pianos has a direct bearing upon teaching efficiency.

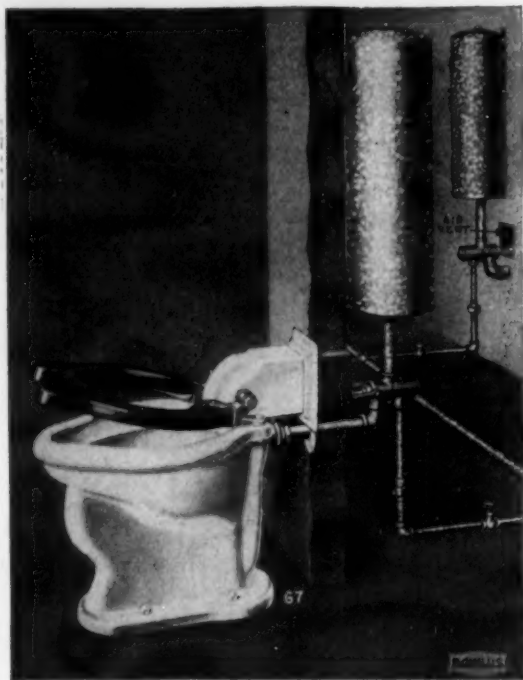
The danger from flagpoles has already been mentioned.

The fire extinguishers should be filled as often as required by law and hoses inspected and the fastening to wall kept secure.

Downspouts and gutters require for good maintenance frequent painting, unless made of copper. It has been the practice in the past of some architects to connect the downspouts to the sewer. This is not right, as in time sewer gas will work back through any trap, and sewer gas has a very decided corrosive action on sheet metal.

The belting used to connect up the driving mechanism with motive power requires occasional splicing, and the janitors should be supplied with belt dressing to keep belts from

BOWLUS "JEWEL" AUTO - Matic WATER CLOSETS



Bowlus Ventilated Jewel Closet No. 67

jetted bowl or where raised rear vent bowl is used. Long or short vent furnished. Short vent is used when wall of utility room is of one inch material. Roughing in 8 inches from utility room wall.

BOWLUS VENTILATED JEWEL CLOSET Exclusive For Schools

No. 67 Bowlus "Jewel" Raised Rear Vent Seat Action Closet designed especially for schools. Valve assembled in air-tight utility room. Bowls are constantly receiving fresh air from utility room by means of vent conduit, thus keeping bowls and toilet room in a perfect sanitary condition. Any number of ranges of closets can be connected to same utility room.

Bowlus No. 67 Raised Rear Vent Closet includes automatic Jewel Valve, vitreous china enameled grey iron vent conduit, extra heavy vitreous china jetted bowl with extended front lip, open front and back ebony, mahogany or natural oak seats with nickel plated and polished seat attachments and concealed galvanized compression tank.

Rubber composition seats supplied at additional cost. Vent can be attached to any regular washdown or

BOWLUS "JEWEL" No. 61 SEAT OPERATING



Bowlus "Jewel" No. 61

Bowlus "Jewel" No. 61 Concealed Tank Closet Combination, seat operating, includes Jewel nickel plated and polished automatic valve, with extension through wall. Elevated or low down concealed galvanized compression tank, and flush pipe. Extra heavy jet vitreous china bowl. Golden oak closed front seat. Roughing-in measurements 13 1/2 inches.

Ask Your Supply House for Prices

THE BOWLUS MANUFACTURING CO. SPRINGFIELD, OHIO

slipping and in good shape. Dripping oil will cause belts to depreciate rapidly.

A very annoying but important source of maintenance is key-wind clocks. Usually these clocks require just cleaning, but otherwise a new mainspring or other parts comprise their maintenance.

It is very essential for sanitary reasons that the floors be kept in a good state of repair. Wooden floors that become splintered and other floors that develop large open cracks are hard to keep clean and the crevices offer good hiding places for filth. This problem is one of care as well as maintenance.

I might add the proper care of the playground. The chief thing to look out for is the rutting of the ground by the driving of trucks and wagons over the ground when it is soft. These ruts cause the children to turn their ankles and interfere seriously with the playing of games. I have found that a playground which has been well graded so as to drain and then surfaced with fine cinders followed by a layer of stone dust about 2 1/2 inches thick is very satisfactory. The stone dust provides a wearing surface which is not too rough on the children's shoes and clothing and the cinders permit the rapid draining of the top surface.

The above has covered a brief description of the main factors which require attention. Of course, one could go on at great length about any particular item, but I believe it would be enlightening to most any board member to realize the great variety and detail that the maintenance man must be familiar with.

SUBSTITUTE PAY IN THE PUBLIC SCHOOLS IN THE DISTRICT OF COLUMBIA

(Continued from Page 54)

day; high, eight dollars per day."	
Indianapolis, Indiana	5.00 6.00
"Daily pay elementary substitutes, five dollars; high school, six dollars."	

Milwaukee, Wisconsin	5.00 6.00
"Grade substitutes received five and high school substitutes six dollars."	
Minneapolis, Minnesota	4.50-5.50 4.50-5.50
"\$4.50 to \$5.50 per day."	
Newark, New Jersey	4.50-5.50 7.00
"Substitute elementary school, four dollars and a half and five fifty; special subjects, six dollars; junior high school, six dollars; senior high school, seven dollars per day."	
New York, New York	5.20 6.50
"Substitute elementary schools, five twenty per day; high schools, six fifty."	
Philadelphia, Pennsylvania	4.00-5.00 5.00-6.00
"Daily pay high school substitutes, five and six dollars; elementary, four and five, according to qualifications."	
Pittsburgh, Pennsylvania	3.00-5.00 5.00-6.00
"Elementary school substitutes, less than three years' experience, three dollars per day. Three to six years' experience, four fifty. Over six years, five dollars. High school substitutes, less than three years' experience, five dollars. Over three years, six dollars. We are about to revise upwards."	
St. Louis, Missouri	6.00 8.00
"Daily pay elementary substitutes, six dollars; daily pay high school substitutes, eight dollars."	

Dr. R. L. Haycock, assistant superintendent of schools, collected additional information from fifty other cities, particularly on the amount deducted from teachers' salaries to pay substitutes after continuous absence of one or more days. The following are digests of some of the replies, the figures being for elementary schools only:

Akron, Ohio, minimum salary, \$1,400.	
No deduction for the first five days; \$17.50 for the second five days. Total salary deducted after 10 days.	
Atlanta, Ga., minimum salary, \$956.	
No deduction for first 3 days; 1/2 of salary deducted after 3 days.	
Albany, N. Y., minimum salary, \$1,100.	
No deduction for first 20 days; \$45 for 30 days; \$67.50 for 45 days, and \$90 for 60 days.	
Duluth, Minn., minimum salary, \$1,000.	
No deduction for first 20 days; after 20 days, 1/4 of salary.	

El Paso, Texas, minimum salary, \$1,000.	
No deduction for first ten days; for the next 10 days, 1/2 of salary; after that the entire salary.	
Kansas City, Mo., minimum salary, \$1,200.	
No deduction for first 20 days; then loss of entire salary.	
Louisville, Ky., minimum salary, \$1,200.	
Three-fourths of salary deducted for one or more days.	
Milwaukee, Wis., minimum salary, \$1,200.	
Three dollars per day for each day absent up to 10; after that entire pay.	
New Orleans, La., minimum salary, \$1,080.	
No deductions for absence.	
Oakland, Cal., minimum salary, \$1,500.	
\$3.75 a day deducted up to 30 days, then entire salary.	
Philadelphia, Pa., minimum salary, \$1,200.	
\$3.00 per day as long as absent.	
Providence, R. I., minimum salary, \$1,000.	
Two-thirds of salary for one or more days.	

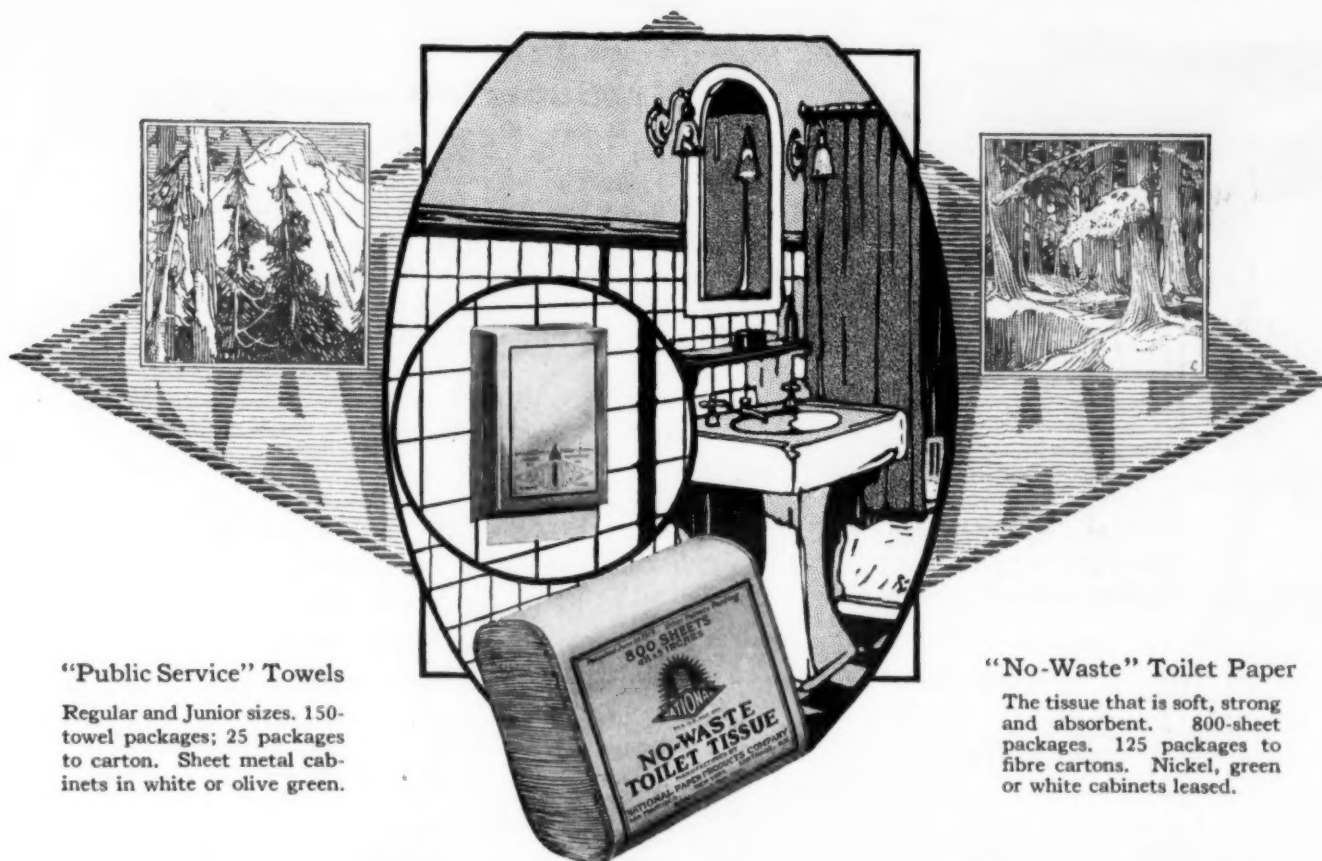
W. S. Deffenbaugh, chief city school division of the U. S. Bureau of Education, has made also a recent study of these questions. He has data from 172 of the largest cities of the country collected and tabulated ready for publication. If published the publication will be available in from three to six months.

Mr. Deffenbaugh's data on absences for sickness and loss of pay are especially interesting. He finds that of 44 cities with population over 100,000 from which he secured data, 33 give full pay during necessary absences because of sickness, for from two to 25 days. Some of these give full pay a fixed number of days and then part pay a fixed number. The majority require doctors' certificates for sickness. One only reports that no leave with pay for sickness is allowed.

From cities of from 30,000 to 100,000 population, 128 sent data to Mr. Deffenbaugh. Of these 103 grant some leave for sickness on full pay, 22 grant leave, deducting part of the pay, and three deduct the entire pay for absences regardless of reason.

Of the 103 referred to above, 32 deduct no salary for absence for sickness up to five days, 45

(Concluded on Page 140)



"Public Service" Towels

Regular and Junior sizes. 150-towel packages; 25 packages to carton. Sheet metal cabinets in white or olive green.

"No-Waste" Toilet Paper

The tissue that is soft, strong and absorbent. 800-sheet packages. 125 packages to fibre cartons. Nickel, green or white cabinets leased.

"No-Waste" Toilet Tissue

Finest Quality Paper at 30% Saving in Net Cost

THIS particular blend of sulphite (slow-cooked fibre) and ground (short fibre) pulp gives strength and absorbency with softness. It is made of sanitary new spruce wood only, under ideal sanitary conditions, by one of the largest paper companies in the world.

Large production results in low cost per package of 800 sheets, while "No Waste" quality and "No-Waste" cabinets, dispensing one double sheet at a time, save so many sheets that by actual test 20% to 30% savings in net cost are common.

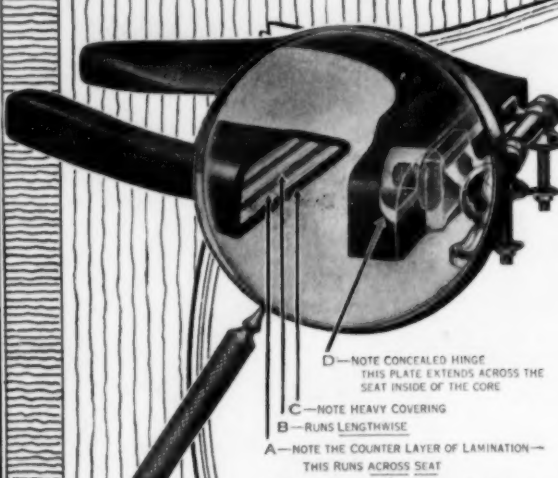
"No-Waste" Cabinets are leased without charge to large users. There are hundreds of thousands in use. Let us equip your buildings. Save money by giving better service. For full particulars address: National Paper Products Co., 64 Furnace Street, Carthage, N. Y. Representatives everywhere.

"Toiltex"—in Rolls

1000 counted sheets in a sanitary wrapped package for the home. Same quality as "No Waste" and made from clean spruce wood only.



THE BRUNSWICK-BALKE-COLLENDER CO.
WHALE-BONE-ITE
 CLOSET SEATS



**"Mr. Superintendent, It's
the Best Seat to be Had"**

AFTER TRYING OUT a small number of
 Whale-Bone-It Toilet Seats one owner (name
 furnished upon request) purchased over 1,000
 Whale-Bone-It Toilet Seats. Now he tells us that
 Whale-Bone-It is "the BEST seat to be had."

And here's the reason. The exclusive features of Whale-
 Bone-It are no secret — Read them — Here they are:

One Piece—No Joints
No Warping or Cracking
Handsome Appearance
No Expansion or Contraction

Non-inflammable
Easily Cleaned
Impervious
Acid Proof

Concealed Hinges
No Exposed Metal
No Cracking of Finish
Long Life Durability

Each of these features bear our unqualified guarantee.

Whale-Bone-It comes in two finishes, ebony and mahogany.

Sold by all plumbers and jobbers, if you cannot secure
 locally ask seat department of makers

THE BRUNSWICK-BALKE-COLLENDER CO.
 1623 SO. WABASH AVE. CHICAGO

(Concluded from Page 138)

deduct none for the first ten days, sixteen for the first fifteen days, and seven for the first twenty days.

Substitute salaries quoted above agree closely with those paid throughout the country in the 172 cities from which Mr. Deffenbaugh has information. Washington's schedule seems, therefore, to be in keeping with the best practice, and to be fair and just to all concerned.

A STANDARD ELEMENTARY SCHOOL BUILDING ADOPTED BY CLEVELAND

(Continued from Page 66)

If a two-story building were to be adopted for a 30-classroom building, it would be advisable to make it "U" shape, which means that the end classrooms are turned at right angles to the main structure to form wings. It is desirable in a two-story building for practical reasons to form wings to the building, otherwise the structure would represent an extreme length, difficult of treatment architecturally without considerable additional expense and certainly more expensive than a three-story building from an operating point of view.

The necessity of end wings in two-story structures, further complicates the problem as to making use of the dead interior corners resulting from the intersection of the wing and the main building because this space is void of light. The two-story building has also the disadvantage of additional capital outlay necessary for the purchase of additional land to accommodate the structure.

A sketch plan has been made (Fig. 7) of the most economical two-story building that can be arranged to suit the educational needs, but it contains the disadvantages expressed above and has not been recommended. As previously stated, two-story buildings of the Paul Revere type (Fig. 6) have been erected, but an analysis

		TABLE I			
Fig.	Type	Cubic Feet	Assumed Cost	Normal Capacity Based on No. of Seats	Per Capita Cost Based on No. of Seats
Fig. 1	Solid Rect. (Gordon).....	893,700	\$146,850.00	690	\$647.00
Fig. 2	Solid Rect. (Anthony Wayne).....	700,000	350,000.00	860	407.00
Fig. 3	Solid Rect. (Gladstone).....	970,000	485,000.00	1,075	451.00
Fig. 4	"One Story" (Brett).....	1,108,000	550,000.00	1,410	390.00
Fig. 5	"H.E" Type (Longfellow).....	1,040,000	520,000.00	930	559.00
Fig. 6	"U" Type (Paul Revere).....	1,280,000	640,000.00	1,330	481.00
Fig. 7	"E" Type (Not erected).....	956,000	478,000.00	1,250	382.00
Fig. 8	"H" Type (Not erected).....	1,020,000	510,000.00	1,330	383.00
Fig. 9-10-11-12	"T" Type (Proposed Standard).....	909,000	454,000.00	1,250	362.00

of all the buildings shows that they cannot be considered as among the most economical, although very little criticism seems to be forthcoming from the educators as to lack of educational stability. On the contrary, it is safe to say that this type has given general satisfaction.

The foregoing reasoning together with construction and administrative considerations has resulted in the recommendation that the building be constructed three stories in height without basement.

Size of Building: The extreme measurements are 220 feet along the front and 112 feet to the extreme rear.

LIST OF ROOMS AND APPENDAGES

Class Units	
26 Classrooms (Standard)	1 Kindergarten
3 Classrooms (Large)	1 Rest Room
1 Auditorium and Stage	1 Rest and Work Room
1 Gymnasium	1 Teachers' Lunch Room
Appendage Rooms	
1 Office Supply Room	1 Kindergarten Store Room
2 General Supply Rooms	3 Girls' Toilets
30 Wardrobes	3 Boys' Toilets
1 Motion Picture Booth	1 Kindergarten Toilet
1 Boys' Shower	2 Teachers' Toilets
1 Kitchenette (Teachers)	
1 Kitchen Supply Room	
Administrative Units	
1 Principal's Office	1 Medical Dispensary and Toilet
1 Clerk's Office	1 Principal's Closet
1 Waiting Room	1 Office Supply Room
Custodial Service Rooms	
1 Boiler Room and Coal Storage	1 Custodian's Toilet
1 Ash Room	1 Help's Room
1 Custodian's Supply Room	1 Transformer Room
and Work Room	1 Switchboard Room
1 Custodian's Office	1 Mechanical Apparatus Room

Adaptability for a Smaller Building: The standard building recommended is adaptable as a smaller standard by omitting the third story. The result would be a building comprising eighteen standard classrooms plus a kindergarten and all other appointments, with the exception of two general toilet rooms.

Comparison of Costs of Various Buildings Per Capita Based on the Same Price Per Cubic Foot

Table I compares the per capita costs of the various types of buildings. Due to the fact that some buildings have larger classrooms than others and some greater story heights, slight variables enter that possibly make the results more or less non-comparable but it is reasonable to assume that these variables do not make a great deal of difference.

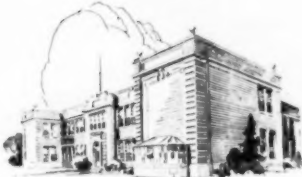
In the foregoing figures assumptions are made that all the buildings were built at the same time and of the same kind of construction and finish and are all based on the same price per cubic foot. On account of these assumptions and the possible variables previously mentioned, care should be taken and judgment used in making comparisons of the per capita costs.

It has purposely been the object of this article to keep from discussing the actual costs of buildings per cubic foot or costs per classroom, for the reason that such information would be misleading for a solution of the problem in

(Concluded on Page 142)



Bloomington High School
Bloomington, Illinois
Architect:
A. L. Pillsbury
Plumber:
Ross Johnson



Centralia High School
Centralia, Illinois
Architect:
A. L. Pillsbury
Plumber:
Fowler Brothers



Garden High School
Garden, Illinois
Architect:
A. L. Pillsbury
Plumber:
Walsh & Slattery

*Preferred for Exacting Plumbing
Since 1878*



Boys' Toilet

West Ward School
Wabash, Ind.

Plumber:
Hitzkind Heating & Plumbing Co.



East Aurora High School
Aurora, Illinois
Architect:
J. C. Llewellyn
Plumber:
N. R. Zack Co.



Deerfield Shields High School
Highland Park, Illinois
Architect:
J. C. Llewellyn
Plumber:
E. Baggot Company



El Paso High School
El Paso, Illinois
Architect:
A. L. Pillsbury
Plumber:
Walsh & Slattery

Meeting the Requirements of Sanitation At Low Maintenance Costs

Nowhere is plumbing subjected to more severe usage than in the school. In spite of this fact, sanitation must be constantly and perfectly maintained and health preserved. In addition, low repair, replacement, operating and water costs are essential.

One of the biggest reasons why Clow plumbing has established its ever increasing preeminence in the school field is the care taken to assure that Clow design, workmanship and operation will successfully meet these strict requirements.

For example: Clow equipment is put through

the Clow "set-up" test before it is shipped. The various fixtures are set up, just as they will be in the actual installation, and are tested to assure that they are in perfect working order.

As a result, every piece of equipment that bears the name Clow is of known and assured quality. There are no rejections on the job, and there are no high fitting, repairing, replacing or operating costs on the installation.

Leading architects recognize this and prefer Clow for all exacting Plumbing jobs in their public building work.

JAMES B. CLOW & SONS, 201-299 NO. TALMAN AVE., CHICAGO

Sales offices in principal cities

CLOW

"HEALTH BUBBLERS" FOR THE CHILDREN

NOTHING is more important in every school than the provision of positive drinking sanitation. Install Rundle-Spence Vertico-Slant Fountains—they are "health bubblers" for the children.

Contamination can't creep in because LIPS CAN'T TOUCH THE R-S NOZZLE. Drinking sanitation is automatically enforced. The slight slant stream prevents water from falling back upon the jet, and is situated just right for convenience. Clear, fresh, clean water always flows.

All types of Sanitary Drinking Fountains, Plumbing Fixtures and Supplies are included in the R-S line. Write for illustrated catalog with complete information.

RUNDLE-SPENCE MFG. CO.

51 Fourth St.,

Milwaukee, Wis.

RUNDLE-SPENCE



C 92

Handsome vitreous china one piece fountain. Combines all the conveniences of the vertical stream with the special slanting stream feature. Glass or cup may easily be filled from it.



C 147

A pedestal fixture of galvanized pipe with extra heavy vitreous china bowl and vertico-slant stream. An extra strong fountain for the playground.

(Concluded from Page 140)

hand. Such unit costs would not indicate the relative merits of the design owing to the fluctuation of market prices from one period to another and duplicate buildings will show a difference in actual costs due to market conditions, and the ability or inability on the part of the contractor to properly estimate the work.

In considering the per capita costs, the type of building should be visualized as to whether or not basements, auditoriums and gymnasiums are provided and whether or not excessive space is given up to areas other than actual classrooms. In this respect it is interesting to note that some buildings with auditoriums and gymnasiums show less cost per capita than other buildings, but this is due to the economical planning of the latest buildings. If the auditoriums and gymnasiums were to be omitted, the per capita cost would be considerably further reduced. This condition is brought about by the fact that the original buildings designed without auditoriums and gymnasiums had considerable lost space in large classrooms, halls, corridors, etc., which more than offsets the space now devoted in the latest designs to auditoriums and gymnasiums.

Table I shows the Gordon school building to be the most costly per capita, the Longfellow is second, and the suggested standard building type "T" is the least costly per capita.

The following tabulation shows the cost per capita for all the buildings placed in order of the amount which is an indication of their economy.

Fig. 1	—Gordon	647 per capita
Fig. 5	—H. W. Longfellow	559 per capita
Fig. 6	—Paul Revere	481 per capita
Fig. 3	—Gladstone	451 per capita
Fig. 2	—Anthony Wayne	407 per capita
Fig. 4	—Brett	390 per capita
Fig. 8	—Suggested "H" type	383 per capita
Fig. 7	—Suggested "E" type	382 per capita
Fig. 9-12	—Adopted "T" type	362 per capita

TWINKLES

(Concluded from Page 68)

ployer, one Mrs. Jones, had been reduced to tears when he left. "Law, yes'm, Mrs. Jones be glad to reference me! I done wuk for her, off 'n on, nigh fo' yeahs."

Miss Snell reached a doubtful hand towards the telephone directory. "I might phone and ask her. What is her name?"

"Huh name? She name Mrs. Jones."

"Yes, yes! But her given name! What is her husband's name?"

"Huh husband?" He scratched his head and looked wildly around; then light dawned. "Yes'm, yes'm, I sees what you want! Huh husband he name Mr. Jones."

The successful applicant proved to be a divinity student, Ishmael by name, who resorts to the pursuit of filthy lucre only in his off hours. He is a small, chocolate-brown individual with a remarkable head of hair, or wool, as close and thick as an astrachan cap. His manner is debonair, not to say jaunty, his good-humor unfailing, his roving eye far too waggish for the calling to which he aspires. Ishmael is a chameleon, I find. Sent today after a New York paper, he returned (after a lengthy and unexplained absence) with a substitute, which he presented to Mr. Barnes with a courtly obeisance.

"Sir," he announced, "I regret that I was unable to obtain the desired issue, but I trust that this may prove satisfactory."

It was rather refreshing to overhear him, soon afterwards, revert to type with a joyous yelp; "Hi, nigger! What is you done wid dem cheers?"

Queer names, and sometimes, queer occupations, give me real joy. Even Miss Snell had to smile when a rather weazened and undersized youth gave his business as "matchmaker". The singularly humble and unassuming cognomen of

Wash Bottoms passed her unnoticed, but when I read from a list the surprising name I. Shockitt, she laughed with me and, from Mr. Barnes's corner came a chuckle.

So the twinkles come and go, gratefully received and recalled in the rather drab round of daily duties. But, though I like all the boys, how my heart warms to the lad who, in the blank following the question, "Who is your immediate superior?" firmly set down in convincing characters—"MOTHER!"

SUPERINTENDENT TALKS TO TEACHERS
In the thought that teachers who feel the deadly rhythm of the lock step will always welcome encouragement along lines of self-assertion, Supt. K. C. Merrick of Morris, Illinois, has issued a communication to those employed in the system which contains several interesting paragraphs.

He contends that: "From time to time our schools have been accused of being manufacturing plants where a monotonous routine exists, with large scale production resulting in a uniform type. Probably there has been no more valuable trend in modern education than that toward a recognition of 'individual differences.'"

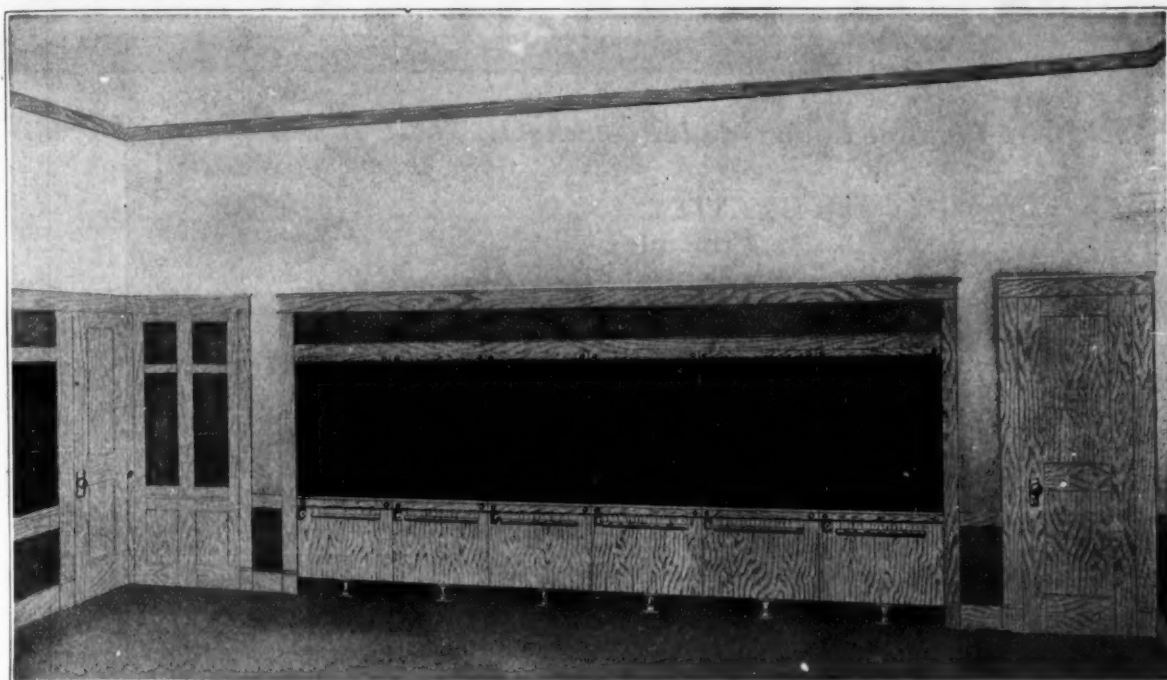
He then enumerates a number of things that he would do if he were a teacher. Among other things he says:

"First of all I would make a personal study of each individual pupil under my care, remembering that, in the very nature of human make-up, there are wide differences of ability, interests, attitude, response and experience in general. Experts tell us that differences in learning-capacities are due to variations in the nerve substance (such variations are usually perpetuated by heredity), sex, race inheritance, maturity, environmental factors, nourishment, sleep, gland action and finally the 'will to learn.'"

"I would remind myself that my pupils come from a great variety of home environment, with wide differences of training and 'experiential background' and with consequent differences in habits and ideals of life. I would note differences in temperament, physical condition, mental response, social relationships and personal

(Concluded on Page 145)

OPEN IT IN A SECOND



**All Doors
Open In One
Operation, Or
Any Door May
Be Opened
Individually**

MILLER SCHOOL WARDROBE

Above is an actual photograph. There are many advantages in the Miller School Wardrobe; we mention the following:

Genuine Bangor Slate Blackboard **No Petty Pilfering**
Solid Bronze Hardware **Reduction of Heating Expense**
Perfect Ventilation and Sanitation **Nothing to Get Out of Order**

K-M SUPPLY CO. - 123 West 8th Street - KANSAS CITY, MISSOURI

For Complete
Information
Write for
Catalogue
W-5

(Concluded from Page 142)

adjustment. In the early weeks of the term especially, but also at every stage of the learning process, I would keep in mind the facts relative to 'the curve of forgetting.' The long vacation period, with its change in activities and break in study habits, is an outstanding cause of forgetting information needed in the various subjects of study. Skill in operation or performance may become inaccurate and slow because of lack of practice."

In discussing contributing factors toward a recognition of the individual, Mr. Merrick refers to testing and diagnosis, encourages personal conferences and the general attitude of the teacher. He says: "I believe that too large a proportion of the teachers' time is taken up with group instruction. Try 'taking time' for personal conferences with pupils needing advice, suggestion and encouragement. This is not a new proposal, for the lower schools until well on the nineteenth century gave little except individual instruction—the master sitting at his desk, and the pupils coming to him one at a time to 'recite.' Some of these conferences may come at appropriate times in the classroom, some in the teacher's residence, some at the home of the pupil. Talk over things together in the friendliest possible manner, frankly and seriously."

"Young people like this sort of thing. On the surface they appear blasé and indifferent, but the adolescent is really emotional, idealistic, responsive, and quick to recognize sincerity of purpose. A visit to the teacher's home, or of the teacher to the pupil's home, has more than once turned failure into success, and disappointment into happiness. Many school systems employ 'visiting teachers.' Remember the slogan: 'Get acquainted with your neighbor; you may like him.' Really come to know your pupil. As a teacher you will be able to do much more for him."

FORTY YEARS OF SERVICE

The country in which we live has behind it an inspiring history, with many achievements to its credit which can profitably be transferred as precepts to succeeding generations. These achievements may be found in almost all lines of human endeavor but, in the rush and excitement which attends all our endeavors, we do

not reflect long enough to secure a perfective and measurement of what is now and what has been.

Those identified with the cause of popular education in the United States will find something of interest in the volume entitled "Forty Years of Service" which tells the story of D. C. Heath & Company, an educational publishing firm. The older among the educators of this country will remember having met in person those four splendid Yankee schoolmasters, Daniel C. Heath, Charles H. Ames, Winfield S. Smyth, and William E. Pulsifer who founded this firm.

The book tells not only the story of the firm and something about its founders, but it also brings before the readers a long list of educational authors that served the cause of education of this country. Among them are such names as Ira Remsen, Woodrow Wilson, John H. Walsh, W. S. Sutton, John Dewey, G. Stanley Hall, Lotus D. Coffman, and many others.

Of the original founders, only William E. Pulsifer is still among us. He is still actively at the helm, guiding the great task which the firm of D. C. Heath & Company is carrying forward with eminent success. He is ably supported in that leadership by E. C. Hillis, Frank F. Hummel, Dudley R. Cowles and Winfield S. Smyth, son of the founder of that name.

Since its organization in 1885, the firm has published nearly 3,000 books, and its list covers the entire educational field from the lowest primary grade to the College text. It has not only maintained standards of excellence in its products, but has always held to a high order of business methods. Its policies in dealing with the educational interests of this country were bound to find recognition.

CHICAGO CORRESPONDENCE

On January 13th, the school board retired six high school principals, twenty elementary principals, seven assistant principals, six high school teachers, 32 elementary teachers, two special teachers, and one member of the Board of Examiners—a total of 74 persons. The occasion was due to a recently-enacted compulsory retirement rule under the terms of which the superintendent of schools was directed to name all persons 70 or more years of age, and the board must retire them with an annuity equal to half the annual

salary for the past ten years for each retired person. The annuity has a minimum of \$1,500 and a maximum of \$2,500.

Since these persons are retired February 1st, the positions must be filled at once. The superintendent was asked to bring in the names of persons whom he expects to nominate for the vacancies at the next meeting of the board, held January 27th. In anticipation of the need of filling the vacated positions, the superintendent has been searching the school system for the best timber. He has set up certain standards for selection.

"The paramount consideration," says the Superintendent, "will be the likelihood of the persons selected to manage the school in such a way as to produce the most valuable human output for this community. I do not consider this an opportunity of reward; I am not making nominations to please any organization, club, or neighborhood. I am studying the conditions and requirements of the school to be served, and selecting from the available persons, the one deemed most likely to keep the school in efficient service, to reorganize such parts of it as need reorganization and to increase the value of the output."

About seventy candidates for principalships have been reported and each candidate has been asked to submit a professional thesis. From each candidate data as follows have been secured:

Details of the candidate's education, teaching and supervising experience.

College courses taken since entrance into the Chicago school system; names, dates, and places.

List of reports, articles, addresses and publications by the candidates—where and when.

Classes in education taught by the candidates—where and when.

Other professional services.

Professional books which the candidate has found of most value to his work, and why.

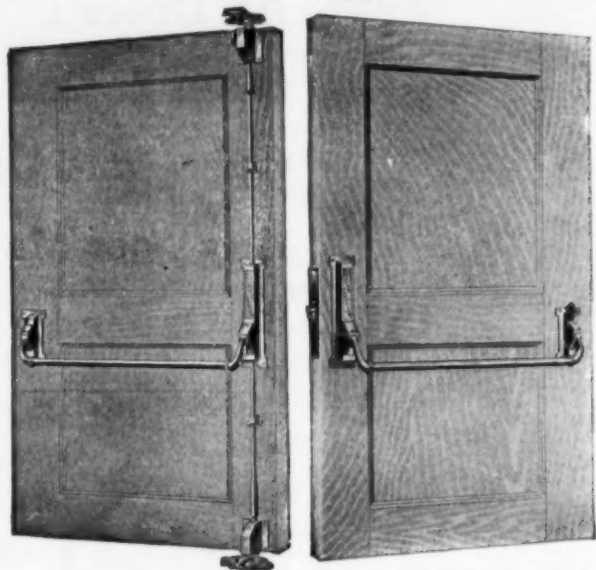
Names, positions, and addresses of persons most familiar with the teaching or supervisory service of the candidate.

Candidates are said to have been advised that whatever rumors are afloat to the effect that a powerful friend, official or unofficial, can help an applicant to promotion should be disregarded. "Beyond a written testimonial as to professional performance, as personally known to the writer of a recommendation, friends can do nothing."

Smith's IMPROVED

PANIC EXIT LOCKS

Smith's Improved Exit Locks Are the Best Locks Made for Schools, Theatres, and Industrial Plants



No. 70—Exit Only.

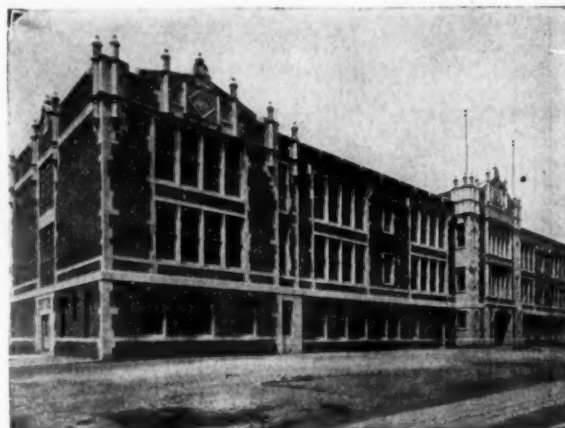
No. 736—Handle and Cyl.
No. 737—Knob and Cyl.

The GRAVITY Principle

Our Gravity Exit Lock is the most perfect Mechanical Expression of the Exit Lock Idea that has ever been developed. It is the Exit Lock with Two Locks and without a single Spring in either Lock.

The LEVER Principle

It is the Exit Lock with Lever Action at the Cross-bar to open the Door. There is No Spring Action and No Spring Tension. It is the One Exit Lock of Unfailing Operation, built on Everlasting Principles for Everlasting Service.



Baltimore City Public School No. 65
E. H. GLIDDEN, Architect

96 Baltimore Public Schools Similarly Equipped

NOW
MADE
BY

The Steffens-Amberg Co.
Newark, New Jersey

WRITE
FOR
CATALOG

Other attempts at assistance are more damaging than helpful to a candidate as it raises a doubt whether the applicant's merit can stand without bolstering. To ask friends to intercede is unprofessional, subjecting them to unprofitable effort. It assumes that those without powerful acquaintances cannot get a fair deal.

The school board has directed the city council to enact the annual school tax levy, and asking \$67,950,000 for 1926. Of this total the sum of \$43,200,000 is asked for instruction and \$22,500,000 for building purposes.

Charges were preferred against eleven teachers for inefficiency. Three of these trials have already been heard by the school administration committee of the school board, acting as a trial body. The decision in the first case resulted in ousting the teacher. The other cases are pending and awaiting further board action. Two alienists who testified in the famous Loeb-Leopold case gave testimony as to the disability of the teacher.

Two Chicago educators were especially honored at the convention of the Illinois State Teachers' Association, held in Springfield on December 28, 29, and 30. Mrs. Bertha S. Armbruster, principal of the Tilton elementary school, was elected president of the association for 1926. She is the third woman ever to be elected to that post of leadership. Walter R. Hatfield, ex-president of the I. S. T. A., and now principal of the Parker Junior High School, was presented with a gold watch by the Association as an expression of gratitude for his vision and efforts in securing a reorganization of the state teachers' association.

The state association adopted a legislative program for guidance in preparation for the meeting of the 55th General Assembly, the foremost plank of which was a ratification of the proposed amendment to the revenue section of the state constitution permitting other types of tax laws in Illinois than the property tax, notably an income tax. The program in part is as follows:

1. A system of tax laws for Illinois that is equitable and productive and rigidly enforced. We believe the enactment of such a system of laws would be made easier by removing some of the limitations in our present State Constitution. Therefore, we recommend the ratification of the amendment to the revenue article of the Constitution adopted by the 54th General Assembly to be submitted to a referendum of the people on November 2, 1926.

2. But whether our revenue laws are framed under the present constitution or under an amended constitution, we recommend the following:

(a) A strict and impartial enforcement of assessment and taxation laws and, if necessary, the enactment of laws providing more stringent penalties for evading such assessments and escaping such taxation as are provided by law.

(b) A revaluation and equalization of assessment of all property, tangible and intangible, by the State Tax Commission or other proper authority so that the assessment of property will be in accordance with the original purpose and intent of the law.

(c) A system of corporation and income taxes designed to yield to Illinois revenues proportionally commensurate with those received from similar sources in other important industrial states; but if an income tax is levied, incomes resulting from personal service or legitimate business enterprise should be taxed at a lower rate than those resulting from private appropriation of socially created values.

(d) Definite provision for apportioning to the public schools such parts of our increasing state revenues as may be necessary for their liberal support.

3. The application and demonstration of the principles and practice of thrift and good business in public school finance by:

(a) The payment of a reasonable rate of interest on school funds by banks and other depositories having such funds on deposit.

(b) Such a reduction in the commission of county collectors, or such other legal provision, as will prevent the payment of funds levied for school purposes over into the county general fund.

4. An approximate equalization of educational opportunity for the children of Illinois. As means to this end, we recommend the following:

(a) Larger territorial units for school taxation and administration. We recommend that a special committee be appointed by this Association to study the problem of having the county assume larger responsibilities and duties as a unit of school taxation and administration under a county board of education, and, if they deem it advisable, to prepare a bill in accordance with their conclusions for introduction in the 55th General Assembly.

(b) An increase in the appropriation to the state school fund until it shall equal at least 25 per cent of the total expense for common schools in Illinois. We recommend that this Association make a definite statement of the purpose or purposes of a state school fund, and we recommend further that a special committee be appointed by this Association to prepare a bill if necessary to amend the present apportionment law to carry out such purposes.

5. Improvement in the ability, efficiency and permanence of the teaching force. As means to this end we recommend the following:

(a) Moderate and progressive increases in the educational and training requirements for beginning teachers in accordance with the recommendations of our Committee on Teacher Training and the State Examining Board.

(b) More liberal financial support for the state teacher-training institutions.

(c) Placing the State Teachers' Colleges and Normal Universities on the same basis of administrative freedom as is now enjoyed by the University of Illinois.

(d) A more secure tenure for teachers, principals and superintendents.

6. Other improvements in our school system, as follows:

(a) Codifying and strengthening our school attendance laws so they will be clear and definite and will make no exemption on account of graduation from the eighth grade.

(b) More adequate compensation and assistance for county superintendents of schools.

(c) Such an increase in the legal maximum of the non-high school district tax rate as will permit the payment of the full cost of tuition.

(d) Such an amendment to the township and community high school laws as will permit a change of boundaries where necessary for the benefit of children attending high school. However, these laws must be guarded against amendments that might cause the undue weakening or the dissolution of existing high school districts.

—Mr. Roscoe L. West, of Trenton, N. J., has recently been appointed to the position of assistant commissioner of education in charge of elementary education. Mr. West is a graduate of the Farmington, Maine, State Normal School, and holds degrees from Harvard College and from Harvard Graduate School of Education. His teaching career has covered that of teacher, superintendent, and director of elementary schools, in addition to lecturing at the summer sessions of Boston University and Harvard Graduate School of Education.

—Galena, Ill. The school board has employed a nurse for full time school work. The nurse entered upon her work the first of the year and will be employed for ten months each year.

Nearly 50,000 seats will be added to the Chicago public school system in 1926 according to the annual report of the business manager of the board of education. Faced with a shortage of 70,000 seats in April, 1923, and a population increasing in leaps and bounds, the board launched what was probably the greatest building program ever undertaken in school history of Chicago. As a result, it has not only cared for an increase of 32,000 in school attendance since that time, but has reduced the original shortage markedly. Already the board has completed 25 schools with a capacity of 22,994 seats. And in 1926, with the completion of 28 buildings now under construction and fourteen additional ones on which work will be started soon, a total of 49,194 seats will be added.



You Receive Full Value When You Buy

FLAGS

MADE OF

STERLING
All Wool Double Warp
Bunting

and

DEFIANCE
Two Ply Cotton
Bunting

THE FLAGS THAT GIVE SERVICE

Sold by dealers everywhere

Manufactured only by

ANNIN & CO.

Fifth Ave. at Sixteenth St.
NEW YORK

The Largest Flag House in the World

FEDERAL, STATE and MUNICIPAL GOVERNMENTS use more flags made of STERLING and DEFIANCE buntings than all other brands combined.

BOOK REVIEWS

Everyday Science Projects

By Edith L. Smith, 331 pages. Price, \$0.96. Houghton Mifflin Co., Boston, Mass.

The ideals of science in the words of an inspiring teacher are to understand nature—that the boundaries of human knowledge may be extended, and that man may live in an ever widening perspective in order to apply this knowledge to the service of man.

The present textbook is intended for grades five, six, and seven, and is designed to serve as an introduction to the study of general science, and also as a basic text for courses in nature study. It may also be used as a supplementary reader in schools which do not offer definite science courses. It is planned for reading and application at home, as well as at school, to assist boys and girls in working out individual projects of their own selection.

Beginning with the fall of the year the first chapters point to worth while things to watch for on rambles in the woods and fields, or into city parks, or along water fronts. At this time pupils may learn how to make a sun dial, a window box for plants, how to start trees from seeds, and how to collect minerals. When winter comes, the outdoor world offers opportunity for experimenting in science. Pupils may then learn how to foretell weather by means of instruments, how to recognize the tracks of wild creatures in the snow, and how to attract birds to the door.

Indoors there will be offered countless experiments to try and things to make in which a knowledge of physics and chemistry is necessary.

Finally, when spring comes, there is the garden to plan and attend, excursions afield, sports and games and other fascinating lessons in the science of everyday life. Special phases of the subject covered are aquariums, indoor gardening, rocks and minerals, sun, stars and sky, photography, household science, chemistry

for boys and girls, experiments with magnets, electricity, and radio.

The United States

By James Fairgrieve and Ernest Young. Cloth, 469 pages, illustrated. D. Appleton & Co., New York City.

This is book four of a series of geography readers. The author stresses the human side of things by telling where man lives and what he does. Thus, he introduces the student to southern cotton fields, tells him about the wheat belt of the great Northwest, how he irrigates the dry lands of the Southwest, and why he builds great cities in the East. He describes the modes of transportation by water, rail, and truck, and points out the natural resources of all sections. The book is liberally illustrated.

Picture Coloring and Color Builder

Directions and material for coloring pictures. Material enclosed in large manila envelope. Published by the Harter School Supply Co., Cleveland, O.

The first of these various types of material put out by this firm are the "Mother Goose Pictures, Series No. 50." The package contains beautiful and appealing child subjects admirably adapted to school or home decoration, and to the amusement and education of children in kindergarten or primary grades. The pictures are intended for color work and are an excellent stimulus to the children's imagination. They are issued in two series of ten prints each, and are lithographed in seven colors.

A second enclosure, No. 2006, contains directions for covering designs with tablets in shape and color indicated. The designs are intended to teach harmony of color and symmetry of design.

A third enclosure, entitled "Mother Goose Posters in Color, No. 2064," includes ten drawings and rhymes printed in black and white outline, on white, three-ply cardboard. They are excellent for crayon and water coloring.

A fourth project, No. 2065, entitled "Patchwork Posters from Mother Goose," contains suggestions for making patchwork posters, together with drawings and extra sheets of cutting paper, on which are printed outlines of each picture.

A fifth project of the group, No. 2127, entitled "The Four Seasons—A Panorama Poster Project," is intended for first, second, and third

grades, and contains material for twelve feet of schoolroom decorations. The set consists of four panels, printed on plain paper to illustrate the four seasons, and sheets of white paper upon which are printed outline drawings of children and animals. The color schemes are suggestive and may be altered to suit the taste of pupil or teacher. The teacher may allow her pupils to arrange the figures on the backgrounds. The activity has educational value since the work calls for exercising judgment. Directions are given for coloring problems indicative of summer, spring, autumn, and winter.

Choice Rhythms for Youthful Dancers

By Caroline Crawford, with music by Elizabeth R. Fogg. Cloth, quarto. \$3. A. S. Barnes Co., New York City.

These melodies have been gathered from a wide variety of sources, chiefly from folk songs, dances, and traditional music, and have been adapted here to a wide variety of uses in schools. They include not only dances but also processional and recessional marches. The adaptations for the piano have been carefully made to come within the ability of any teacher.

Handwork for Boys

By F. Clarke Hughes. Cloth, 120 pages. Price, \$1.50. The Bruce Publishing Company, Milwaukee, Wis.

Toy books of the present have passed the pioneer stage of "the making of something." The toy book of the future must produce the combination of design, plus variety, and the appreciation of taste in finish.

The present volume has been prepared by an experienced instructor in manual arts, who has combined in an interesting manner, artistic ability, keen insight into the needs and an understanding of boys and their interests. He is unusually fitted by ability, training and experience to plan a series of toys that will be interesting and instructive to those who build them.

The projects have been arranged to serve three types of readers: Boys who like to make things, the parents of these boys, and the teachers of the boys. The contents of the book have been planned to give the boy, even without a teacher, sufficient instruction so that he may make a variety of interesting articles in wood and metal. The problems are not arranged in



MAXWELL'S WINDOW SHADES Are **DEPENDABLE** Shades

Window Shades of Every Description Made to Order

The AIRANLITE Double Roll Shade

MOUNTED ON PATENTED BRACKETS
IS THE PERFECT SCHOOL SHADE.

It gives a correct and scientific diffusion of light and permits window ventilation.

It is easy to adjust and cannot get out of order—is strong and durable—good looking and well made.

AIRANLITE Double Roll Shades can be made of any standard shade cloth or of canvas.

For school shades our special woven tan colored canvas is recommended.

The Patented Adjustable Light Stop does away with streaks of light between rollers and the patented brackets hold shades in perfect alignment, giving the appearance on the outside, of being one continuous shade.



For Long and Satisfactory Service Use AIRANLITE DOUBLE ROLL SHADES

(Name is Copyrighted, U. S. Patent Office)

They Increase the Efficiency and Improve the Health of Teachers and Pupils.

Write for Prices and Catalog.

S. A. MAXWELL & CO., Inc.

ESTABLISHED 1851

NEW YORK

PITTSBURGH

CHICAGO

KANSAS CITY

CHICAGO ADDRESS—3636 IRON ST.

CAUTION!

Users of double roll shades are cautioned against infringements and imitations, as the AIRANLITE Patented Double Roll Shade is fully protected by U. S. Patents.

Be sure you get AIRANLITE Double Roll Shades mounted on AIRANLITE Patented Brackets.

regular sequence and it is left to the boy, or the teacher, to select the problem in the order which seems best. The toys have been tried out in actual practice and include only those which have a strong appeal for boys.

The book is a real contribution to the literature of toymaking and should prove a source of pleasure to many boys and their instructors.

How to Write a Thesis

Ward G. Reeder. Cloth, 136 pages, 16mo. Public School Publishing Co., Bloomington, Ill.

The writer of this little handbook has helped hundreds of young fellows to select and plan the problems for their theses. He has helped them organize, interpret and write their findings, he has criticized the language, form, and illustrations of theses. The present little book is the result of his practical work. It is as complete and helpful a presentation of the mechanics of theses writing as any student may use.

Source Studies in American Colonial Education

The Private School. By Robert F. Seybolt. Bulletin No. 28, 1925. Paper, 109 pages. Price, \$0.50. Published by the University of Illinois, Urbana.

This bulletin aims to offer authentic information concerning private schools in Colonial America. Investigations of this type render a distinct service to historians of education and to others interested in the development of present schools. The private school has received relatively little attention in accounts of our early educational activities but the information which Prof. Seybolt presents in this bulletin demonstrates that it was an institution of considerable significance.

The booklet includes chapters on the teaching of French, Italian, Portuguese, Spanish, and other subjects in Colonial America, also, vocational education, elementary mathematics, education of girls, and grammar-school education.

It is brought out that the private schools of that period were free to originate and to put into practice ideas that made for improvements in their curricula and methods. Their masters sought always to keep abreast of the times and they rendered an important service in arranging hours of instruction to suit the convenience of students. There was no prescribed course of study and yet any student might pursue as

many subjects as he desired. The private schools satisfied the requirements of the colleges, but in addition offered theoretical and technical preparation for the vocations. The schools were open to all who could afford to pay the fees exacted and they included among their number not only girls in classes with boys or in schools for ladies only, as well as adults who were offered an opportunity to learn the rudiments of education, or were continuing some advanced studies.

Working Manual of Civics

By Milton Conover. Paper, 88 pages, Price, \$0.75. Johns Hopkins Press, Baltimore, Md.

These exercises are intended to supplement the ordinary textbook on civics used in high schools and normal schools. They aim to lead the student beyond the covers of textbooks and into the practical fields of actual government. Each exercise contains questions that may be eliminated without breaking the unit of the report and hence it is adjusted to local needs.

A maximum amount of benefit to be derived from these exercises presumes a meeting of the class for a socialized recitation every one or two weeks with each student reporting personal conclusions on the general problem in the light of independent research.

Laboratory Exercises in General Chemistry

By Wm. Foster and H. W. Heath. 186 pages. Price, \$1.25. D. Van Nostrand Co., New York, N. Y.

This book is intended to accompany Foster's Elements of Chemistry and offers a well-rounded laboratory course meeting the demands of students who have had no previous training in chemistry. It is not required that the student take all of the work outlined, but the teacher may use her discretion in selecting those exercises that may be of value in meeting the needs of the course. Students taking special interest in the subject may be given some of the exercises not required as a part of the course.

A special chapter on first aid in case of accident is provided for the convenience of the teacher and the information of the student. It covers all of the ordinary emergencies and a copy should be placed near the first-aid cabinet.

At the beginning of each experiment there is a list of the articles and reagents to be used

in the experiment. An appendix contains a concentration of reagents, tables of the approximate widths of the common elements, weights and measures, vapor pressures of water, weight in grams of one liter of certain gases, as well as a table of solubility.

Source Book in Health and Physical Education
By Thomas D. Wood and Clifford L. Brownell. Cloth, 590 pages. Published by The Macmillan Co., New York City.

Brief extracts from various writers on the teaching of health, physical training, etc. The quotations presented are in the vast majority of cases well chosen and significant, but some are open to question and involve views that can hardly be defended in practice.

Methods of Handling Test Scores

By Luella C. Pressey and Sidney L. Pressey. Cloth, 60 pages. Price, \$0.60. Published by the World Book Co., Yonkers, N. Y., and Chicago, Ill.

The present almost universal employment of standard tests in public schools has made it essential that there be available for teachers, a brief and simple statement of those elements of statistical method which it is necessary for a teacher to know if the best use is to be made of the results of testing. It is for the teachers in service that the lessons are intended, since they enable a teacher to instruct herself in the essential statistical procedures which every teacher must know.

The present book comes as a welcome addition to the literature on testing. It not only shows the simplest things to do with scores on standard tests but also gives effective practice for establishing skill in handling the test scores. The methods of each book are simple and easy ways of doing things and they represent the most natural ways of handling testing data to give meaning and make them useful in improving teaching. It is estimated any teacher can master the booklet, including the many practice problems, in about fifteen hours.

The book is divided into ten lessons dealing with tabulating, finding medians, using norms, and making and interpreting tables and graphs. Each lesson is accompanied by practice exercises and every point is illustrated with material taken directly from the classroom.

(Concluded on Page 152)

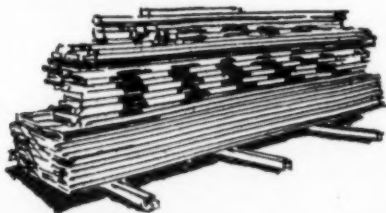


This Knockdown Bleachers book is full of valuable information

Every Coach, Manager or School Executive should have a copy of this Knockdown Bleacher booklet.

It gives detailed information on seating crowds in comfort—utilizing space to the best advantage, and making waste space pay.

The attached coupon will bring your copy as long as the present edition lasts.



Easy to set up; compact to store, — "They rise to the occasion"

KNOCKDOWN BLEACHERS

Leavitt Manufacturing Co.
Department J, Urbana, Illinois
Please send me without obligation a copy of your book on Knockdown Bleachers.

Name _____

Address _____

FERALUN Anti-Slip Treads

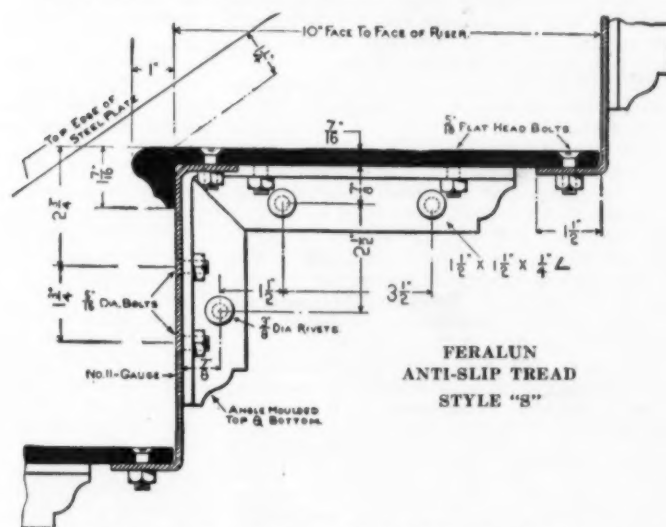
A Wise Investment

providing for absolute safety on stairways under all conditions, and elimination of repair work in the future.



GEORGE WASHINGTON HIGH — NEW YORK CITY
Recently Completed — FERALUN Equipped

Appreciating the constant, heavy traffic to which school stairways are subjected, the American Abrasive Metals Company has designed an Anti-Slip Tread especially for school installation. The nation wide acceptance of FERALUN Style "S" Structural Treads—illustrated below—by Architects and Educators marks them as the ideal tread for schools.



The service rendered by FERALUN Anti-Slip Treads is shown in one New York City School where they have been in constant use for more than eleven years without a single accident reported—that's SAFETY.

Installations of FERALUN Anti-Slip Treads have withstood the abrasions of more than 14,000,000 people, which in a school means practically the life of the building—that's DURABILITY.

DETAIL SHEET SENT UPON REQUEST

American Abrasive Metals Co.
50 Church St. New York

Philadelphia Chicago Buffalo Boston Pittsburgh

Make Walkways Safe

Let the Pilot Steer Your Course in Arithmetic

TEACHERS' MANUAL
FOR GRADES ONE TO FOUR



A NEW Series of Arithmetics for Grades Three to Eight, both inclusive, with a Teachers' Manual for Grades One, Two, Three, and Four, supplemented by Drill Cards—Foundation Number Work for the first four grades.

THE PILOT
ARITHMETICS

STEVENS
MARSH
VAN SICKLE



NEWSON & COMPANY

NEWSON & COMPANY

73 Fifth Avenue, New York

:: :: :: :: :: ::

623 South Wabash Avenue, Chicago

(Concluded from Page 150)

Anyone looking for a brief and clear statement of methods will find this an adequate, non-technical and concrete exposition of procedures that save time and make work easy in using and interpreting the results of standard tests.

A Manual for Machine Woodworking

By DeWitt Hunt. Cloth, 222 pages, illustrated. Published by the Harlow Publishing Co., Oklahoma City, Okla.

This book is volume three of a series of manuals describing and illustrating fundamental operations in hand and machine woodworking. Factory production methods are taken up in this book and the more difficult operations in furniture construction are fully detailed. The basis of the work is school shop practice.

The Lincoln Library of Essential Information
Cloth, 2172 pages, illustrated. Published by The Frontier Press Co., Buffalo, N. Y.

The publishers of this book have correctly called it a "library". It is a surprising volume; for its inclusiveness, compactness, interesting arrangement and complete treatment of facts are a wide departure from both textbooks and encyclopedias and are quite unusual in books offered for school use. Its purpose is to afford a general reference work in one accessible, easily read volume, and this aim has been successfully met.

The book is divided into twelve sections or chapters, each of which is sufficient in size and comprehensive enough in subject matter to make an impressive textbook in itself. The sections are in their order devoted to (1) The English Language, (2) Literature, (3) History, (4) Geography and Travel, (5) Science, (6) Mathematics, (7) Economics and Useful Arts, (8) Government and Politics, (9) Fine Arts, (10) Education, (11) Biography, (12) Miscellany of General and Useful Information.

The arrangement of the sections may be better understood by describing the first section, devoted to the English language. It opens with a historical appraisal of English as a literary and word language. Good usage is next taken up in a comprehensive list of errors to avoid. Word building is made clear on the basis of roots, prefixes and suffixes, and stems from the Saxon, Latin, Greek, and French tongues. An alphabetic list of typical derivations is given. Spelling, pronunciation, sentence building, punctuation, abbreviation, oral, and written dis-

course, public speaking, letter writing, synonyms, foreign words and phrases, the home library—all these are comprehensively treated in subdivisions of the section and each would make quite a long chapter or group of chapters in a textbook.

The enumeration of the sub-section heads of only one part of the book might be extended to each of the remaining eleven subjects of the work, but space will forbid it here. Suffice it to add that each section is comprehensive and inclusive in its field and well arranged for ready reference. It is interesting to read in one list the pen names of the greatest English and American writers, to find in another a comprehensive topical and statistical summary of American history, again to have access to a dictionary of American geography, and to find summaries of the leading facts of science carefully classified. Such modern business subjects as advertising and salesmanship are treated, and such vast subjects as music, painting, architecture, education, games and sports, and several scores of other topics have a place in the book.

The book is a vast storehouse of useful and interesting information. Its dictionaries include in most accessible form, facts and information to be found in no single work with which we are familiar. Its historic, statistical, and analytical tabulations show at a glance information that only the most comprehensive scientific works contain. In brief, the work is a real reference book.

The book is not so satisfactory in those parts which discuss some of those general problems of literature and the social sciences concerning which there are vast differences of opinion among men. Perhaps it is impossible to expect any one book to fairly present all the important schools of thought on such matters as history, science, politics, religion, etc. In the seeking for the truth, opinion will always enter any statement except one of bare fact. The present book too much seeks to reflect the most popular viewpoint. In so doing, it sometimes fails to give the opposing views which are deserving of consideration.

Thus, it would be valuable to indicate the less popular view of such historic matters as the reformation, the Boer war, the World war, etc., etc. It would be worth while to point out the serious objections which have been brought

against the works of some writers like Shaw, and Ybanez, and Balzac. It would be helpful to have the errors as well as the worth-while theories of some of the philosophers, social thinkers, and educational reformers pointed out.

In places the book lacks the critical appraisal of men, theories, and events, which may be looked for in a work which seeks to give essential information. The desire to be inclusive has led to the introduction of some materials which may be useful to the critically informed adult, or to the exceptional professional reader, but which does not appear to be essential to the average user and particularly to the children or adolescents. Again some of the treatises in departments of human knowledge are too brief to give anyone a comprehensive view and just long enough to recall the old saw that a little knowledge is a dangerous thing. Thus, the chapter on psychology is devoted entirely to the behavioristic theory, and overlooks entirely the spiritual element in man and conveys no notion of man's freedom of will and action. Similar observations might be made of several other departments.

The Effect of Population on Ability to Support Education. By Harold F. Clark, University of Indiana, Bloomington, Ind. A study of the relation of population to wealth and ability to pay for schools. An interesting formula is suggested for determining the relation of the number of children in a community to the taxable wealth. Applications to the state of Indiana are suggested.

New Editions of Standard Fire Regulations: Storage and Handling of Combustible Fibres; Safeguarding Dry Cleaning and Dry Dyeing Plants; Prevention of Dust Explosions in Grain Elevators. The regulations have been brought up to date for general use and are being issued by the National Fire Protection Association, 40 Central St., Boston, Mass.

SELECTION AND RETENTION OF TEACHERS

(Concluded from Page 44)

Those with a master's degree will be allowed \$100 per year above Class III group.

The salaries of supervisors, principals and of the men teachers are not governed by the above schedule. The yearly increase may be granted for successful work upon rating of superintendent with assistance of principals and supervisors.

Teachers new in the system will not be paid the maximum the first year.

School Board Journal

DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

(Continued from Page 171)

SASH, VENTILATING
Detroit Steel Products Company

SAWS—CIRCULAR, BAND
J. D. Wallace & Co.

SCIENTIFIC APPARATUS
Rowles Co., E. W. A.

SCREENS—PICTURE
Trans-Lux Daylight Picture Screen Corp.

SCRUBBING EQUIPMENT
Finnell System, The

SHOWERS
Clow & Sons, James B.
Hoffmann & Billings Mfg. Co.

SIRENS
Federal Electric Company, The

SKYLIGHTS—METAL
Milwaukee Corrugating Co.

SPRAY-PAINTING EQUIPMENT
DeVilbiss Mfg. Co., The

STAGE EQUIP. AND SCENERY
Jackson Corp., A. P.
Kansas City Scenic Co.
Lee Lash Studios
Novelty Scenic Studios
Tiffin Scenic Studios
Twin City Scenic Company
Volland Scenic Studios, Inc.

STAIR TREADS
Alberene Stone Company
American Abrasive Metals Co.
Norton Company
Safety Stair Tread Co., The
Stedman Products Co.

STANDARD TESTS AND SCALES
National Publishing Society

STATIONERS
Blair Company, J. C.

STEEL CASINGS—Doors, Windows
Milwaukee Corrugating Company

STEEL JOISTS
Truscon Steel Company

STEEL SASHES
Detroit Steel Products Company

STEEL STORAGE CABINETS
Durabilt Steel Locker Co.
Medart Mfg. Co., Fred

STEEL WINDOWS
Detroit Steel Products Company

STOOLS, STEEL
Angle Steel Stool Company

SWEEPING COMPOUNDS
Robertson Products Co., Theo. B.

TABLES
Derby & Company, Inc., P.
Gunn Furniture Company
Hamilton Mfg. Co., The
Mutschler Brothers Company
Rinehimer Bros. Mfg. Co.

TABLETS
American Tablet & Stationery Co.
Blair Company, J. C.

TALKING MACHINES
Victor Talking Machine Co.

TEACHER AGENCIES
Natl. Assn. of Teacher Agencies
Teacher Agencies Directory

TELEPHONE SYSTEMS
Federal Electric Co., The
Federal Tel. & Tel. Co.
Western Electric Company

TEMPERATURE REGULATION
Buffalo Forge Company
Johnson Service Company
National Regulator Company

THERMOMETERS
Wildor-Pike Thermometer Co.

TOILET PAPER AND FIXTURES
A. P. W. Paper Company
Bermes Company, Daniel
National Paper Products Co.
Palmer Company, The
Robertson Products Co., Theo. B.

TOILET PARTITIONS
Clow & Sons, James B.
Mills Company, The
Sanymetal Products Company
Structural Slate Company
Vitrolite Company
Weis Mfg. Co., Henry

TOWELS
A. P. W. Paper Company
Brown Company
National Paper Products Co.
Palmer Co., The
Robertson Products Co., Theo. B.

TYPEWRITERS
Remington Typewriter Co.
Underwood Typewriter Company

TYPEWRITER SUPPLIES
Remington Typewriter Company

VACUUM CLEANING SYSTEMS
Spencer Turbine Company, The
Western Electric Company

VACUUM PUMPS
Nash Engineering Company

VALVES—FITTINGS
Bowling Manufacturing Co., The
Clow & Sons, James B.

VARNISHES
Valentine & Company

VENTILATING SYSTEMS
American Foundry & Furnace Co.
Bayley Mfg. Company
Buckeye Blower Company
Buffalo Forge Company
Dunham Company, C. A.
Healy-Ruff Company
Milwaukee Corrugating Co.
Nelson Corp., The Herman
Nesbitt, Inc., John J.
Peerless Unit Vent. Co., Inc.
Young Pump Company

VENTILATORS
Buffalo Forge Company
Globe Ventilator Company
Knowles Mushroom Ventilator Co.
Milwaukee Corrugating Co.

VENTILATORS-WATER CLOSETS
Bowling Manufacturing Co., The

VOCATIONAL EQUIPMENT
Buffalo Forge Company
Christiansen, C.
Columbia School Supply Co.
Sheldon & Company, E. H.
Wallace & Co., J. D.

WAINSCOTING
Stedman Products Co.

WARDROBES
K-M Supply Company
Wilson Corp., Jas. G.

WASTE PAPER BASKETS
Erie Art Metal Company
National Vulcanized Fibre Co.

WATERPROOFING
Obelisk Waterproofing Co., The

WATER PURIFIERS
Clow & Sons, Jas. B. (R. U. V.)
R. U. V. Company, The

WATER SYSTEMS
Myers & Bros. Co., F. E.

WEATHERSTRIPS
Athey Company, The
Chamberlin Metal Weatherstrip Co.
Monarch Metal Products Co.

WINDOWS—ADJUSTABLE
Austral Window Company
Detroit Steel Products Company
Truscon Steel Company
Universal Window Company

WINDOW FIXTURES
Columbia Mills, Inc.
Williams Pivot Sash Company

WINDOW GUARDS
American Fence Construction Co.
Badger Wire & Iron Works
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

WINDOWS—REVERSIBLE
Detroit Steel Products Company

WINDOW SHADE CLOTH
Columbia Mills, Inc.
Du Pont de Nemours & Co., E. I.
Western Shade Cloth Company

WINDOW SHADES
Acroshade Company
Athey Company
Columbia Mills, Inc.
Draper Shade Co., Luther O.
Du Pont de Nemours & Co., E. I.
Maxwell & Co., S. A.
Steele Mfg. Co., Oliver C.
Wagner Awning & Mfg. Co., The
Western Shade Cloth Company

WINDOW SHADE HOLDERS
Allen Shade Holder Co., The

WINDOW SHADE ROLLERS
Columbia Mills, Inc.
Hartshorn Company, Stewart
Western Shade Cloth Company

WINDOWS, STEEL
Detroit Steel Products Company

WIRE GUARDS
Badger Wire & Iron Works
Cyclone Fence Co.
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

WOODWORKING MACHINERY
J. D. Wallace & Co.

ADVERTISERS' REFERENCE INDEX

	Page		Page		Page
Acme Partition Company.....	134	Federal Telephone & Mfg. Corp.....	158	Oak Flooring Bureau.....	12
Aeroshade Company.....	114	Finnell System, Inc.....	82	Obelisk Waterproofing Co., The.....	163
A. P. W. Paper Company.....	3rd Cover	Freeport Gas Machine Co.....	132	Palmer Co., A. N.....	169
Alberene Stone Company.....	162	Frontier Press Co., The.....	35	Palmer Co., The.....	34
Allen Shade Holder Co.....	168	Frost Mfg. Company, The.....	122	Peabody School Furniture Co.....	19
American Abrasive Metals Co.....	151	Gillis & Geoghan, The.....	147	Peerless Unit Vent. Co.....	129
American Book Company.....	153	Globe Ventilator Co.....	128	Peterson & Co., Leonard.....	104
American Crayon Company.....	18	Globe Ventilator Co.....	128	Pick & Co., Albert.....	11
American Fence Construction Co.....	94	Gregg Publishing Co.....	154	Pitman & Sons, Isaac.....	169
American Foundry & Furn. Co.....	125	Gunn Furniture Company.....	110	Potter Manufacturing Corp.....	162
American Foundry & Furn. Co.....	86	Guth Company, Edwin F.....	84	Premier Engraving Company.....	164
American Portable House Co.....	164	Haas Company, Philip.....	143	Progressive Seating Co.....	26
American Seating Company.....	17	Hamilton Mfg. Company, The.....	116	Puro Sanitary Drink. Fount. Co.....	158
American Tablet & Sta. Co.....	111	Hamlin, Irving.....	114	Racine Iron & Wire Works.....	162
American Type Founders Co.....	117	Hammett Company, J. L.....	165	Rand, McNally & Company.....	108
Anchor Post Iron Works.....	98	Harter School Supply Company.....	22	Readsboro Chair Company.....	24
Angle Steel Stool Company.....	31	Hartshorn Company, Stewart.....	126	Remington Typewriter Co.....	106
Annis & Company.....	149	Hawkeye Clock Co.....	166	Rinehimer Bros. Mfg. Co.....	24
Arlington Seating Company.....	20	Healy-Ruff Company.....	120	Robertson Products Co., Theo. B.....	32
Armstrong Company, The.....	166	Heath & Co., D. C.....	153	Rowles Co., E. W. A.....	33
Asbestos Buildings Co.....	161	Heywood-Wakefield Company.....	27	Rundle-Spence Mfg. Co.....	142
Athey Company.....	123	Hill Standard Company.....	95	Russell & Sons, Albert.....	168
Austral Window Company.....	4th Cover	Hockaday Company, The.....	144	R. U. V. Company, Inc., The.....	136
Automatic Pencil Sharpener Co.....	163	Hoffmann & Billings Mfg. Co.....	148	Sani Products Company.....	135
Badger Wire & Iron Works.....	164	Holden Patent Book Cover Co.....	81	Sanymetal Products Co.....	10
Beardelee Chandelier Mfg. Co., J.....	74	Imperial Brass Mfg. Company.....	136	Sargent & Company.....	8
Beaver Products Co., The.....	157	Inner Braced Sales Company.....	28	Scientific Seating, Inc.....	28
Beckley-Cardy Company.....	30	Internat'l Time Recording Co.....	172	Shaw-Walker.....	80
Berger Mfg. Company.....	102	Iroquois Publishing Co.....	154	Sheldon & Company, E. H.....	115
Binnay & Smith Company.....	109	Jackson Corp., A. P.....	160	Sonneborn Sons, L.....	10
Blair Company, J. C.....	155	Jacobus School Prod. Co., The.....	32	Spencer Lens Company.....	160
Bossert & Sons, Louis.....	166	Johnson Service Company.....	5	Spencer Turbine Company.....	4
Bowling Manufacturing Co., The.....	138	Kansas City Scenic Company.....	168	Standard Blackboard Co.....	166
Bradley Wash Fountain Co.....	148	Kewanee Boiler Company.....	8	Standard Electric Time Co., The.....	38
Brown Company.....	170	Keweenaw Mfg. Company.....	101	Standard Gas Equipment Corp.....	131
Brunswick-Balke-Collender Co.....	140	K-M Supply Company.....	145	Standard School Equipment Co.....	20
Buckeye Blower Company.....	9	Knowles Mushroom Vent. Co.....	128	Stedman Products Company.....	77
Buffalo Forge Company.....	120	Kundtz Co., The Theodor.....	23	Steele Mfg. Co., Oliver C.....	165
Cabot, Inc., Samuel.....	92	Laidlaw Brothers.....	153	Steel Furniture Company.....	29
Cannon Printing Company.....	164	Landis Eng. & Mfg. Co.....	112	Steffens-Amberg Company.....	146
Carter-Bloxonend Flooring Co.....	76	Leavitt Mfg. Company.....	151	Structural Slate Company.....	92
Chicago Gymnasium Equip. Co.....	158	Lee Lash Studios.....	163	Taylor Company, Halsey W.....	121
Christiansen, C.....	26	Leitz, Inc., E.....	161	Tiffin Scenic Studios.....	166
Circle A Products Corp.....	89	Little, Brown & Company.....	168	Togan-Stiles Company.....	168
Clow & Sons, James B.....	141	Logan Co.....	159	Trans-Lux Daylight Picture	
Colt's Pat. Fire Arms Mfg. Co.....	132	Longmans, Green & Co.....	154	Screen Corp.....	114
Columbia Mills, Inc.....	2	Lynn Company, James.....	30	Triple Metals Corp.....	118
Columbia School Supply Co.....	21	Lyon Metallic Mfg. Company.....	85	Truscon Steel Company.....	126 and 147
Compton & Company, F. E.....	103	Matthews Gas Machine Co.....	166	Twin City Scenic Company.....	160
Copper & Brass Research Ass'n.....	87	Maxwell & Co., S. A.....	150	Underwood Typewriter Co.....	113
Curtis Publishing Company.....	119	Medart Mfg. Co., Fred.....	175	Union School Furnishing Co.....	28
Cyclone Fence Company.....	8	Mershon & Morley Co.....	165	U. S. Inkwell Company.....	168
Dallas Chamber of Commerce.....	75	Messner Piano Company.....	90	Universal Window Company.....	18
Denoyer-Geppert Company.....	155	Miller Keyless Lock Co., The J. B.....	164	Van Range Company, John.....	133
Derby & Company, Inc., P.....	30	Milwaukee Corrugating Co.....	99	Victor Talking Machine Co.....	93
Derby & Company, Inc., P.....	34	Mitchell Manufacturing Co.....	96	Vogel Co., Joseph A.....	2nd Cover
Detroit School Equipment Co.....	79	Monarch Metal Products Co.....	98	Volland Scenic Studios.....	160
Detroit Steel Products Co.....	132	Monroe Calculating Machine Co.....	106	Vonnegut Hardware Company.....	6
Detroit Suburban Gas Plant Co.....	132	Murdock Mfg. & Sup. Co., The.....	158	Wagner Awning & Mfg. Co., The.....	159
Detra & Co., Inc., John C.....	159	Myers & Bros. Co., F. E.....	148	Wallace & Company, J. D.....	26
De Vilbiss Mfg. Co., The.....	144	Narragansett Machine Co.....	157	Walraven Book Cover Co., A. T.....	156
DeVry Corporation, The.....	161	Nash Engineering Company.....	36	Wayne Iron Works.....	187
Draper Shade Co., Luther O.....	162	National Crayon Company.....	32	Weber Costello Company.....	25
Dougherty & Sons, Inc., W. F.....	132	National Paper Products Co.....	139	Webster & Co., Warren.....	120
Dunham Company, C. A.....	124	National Publishing Society.....	156	Weis Mfg. Company, Henry.....	176
Du Pont de Nemours & Co., E. I.....	12	National School Equipment Co.....	24	Western Electric Company.....	73
Durabilt Steel Locker Co.....	91	National Vulcanized Fibre Co.....	97	Western Shade Cloth Co.....	165
Duraflex Company, The.....	83	Natural Slate Blackboard Co.....	1	Wiese Laboratory Furniture Co.....	156
Durand Steel Locker Co.....	107	Nelson Corp., The Herman.....	7	Williams Pivot Sash Co., The.....	127
Duriron Co., Inc., The.....	100	Nelson Mfg. Co., N. O.....	137 and 166	Wilson Corp., Jas. G.....	34 and 144
Ebinger San. Mfg. Co., The D. A.....	148	Newson & Company.....	152	Winston Co., The John C.....	155
Economy School Furniture Co.....	16	N. Y. Silicate Book Slate Co.....	168	World Book Company.....	154
Erie Art Metal Company.....	163	Nichols-Lintern Co.....	161	Yawman & Erbe Mfg. Co.....	106
Federal Electric Company, The.....	159	Norton Door Closer Co.....	78	Young Pump Company.....	128
Federal Steel Fixture Co.....	166	Nystrom & Co., A. J.....	105		

After the Meeting



THE MILLENNIUM

From the Manchester (England) Guardian.
[A startling development of wireless possibilities is contained in the news of a recent experiment in America. The subject of this experiment was sent to bed at his usual time but with head-phones to his ears. "He slept for the customary eight hours, during which time he was, unwittingly, the recipient, via the radio head-set, of considerable educational matter, all of which, upon waking up in the morning, he turned out to have learned by heart."]

THE MILLENNIUM

Ye dunces of the classroom,
Ye lowest of the form,
Who sit at ease and slumber,
While pale preceptors storm;
Behold, on your horizon
A brighter light is shown—
For you shall sit and slumber
And still be wisdom's own!

Through head-phones there shall trickle
The lore you ought to know—
Dull, indistinct, and fickle
As offered years ago;
But soothing now and tireless
The lessons onward creep,
Imbued in peace by wireless
While little learners sleep.

The good boys doze discreetly,
The bad ones simply snore,
Learnt off and laid in store.
But lessons are completely
Nay, more—no master itches
To tan some urchin's hide,
For here the wireless switch is
The only one applied.

An Old Green Bird

The following story is told of ex-United States Senator "Sawney" Webb, famous Tennessee educator. One day "Sawney" had occasion to say a few words to a lad who had consistently neglected to make the acquaintance of the Greek verb LUO. So efficacious were the Senator's remarks that the boy found it convenient to go home, park himself out on the back porch by the pet parrot's cage, and repeat, LUO, LUEIS, LUEI, until he and the parrot both had thoroughly mastered its present tense.

The boy was amused that the parrot should be able to learn Greek words and took his bird up to the next recitation for Sawney to hear him recite. After the parrot had correctly given the forms, Professor Webb remarked dryly:

"Well, well! If I were you boys I'd be ashamed to let an old, green bird beat me learning Greek."

Welcome Relief

"Well, young woman, so you have graduated."

"Yes."

"Chock-full of wisdom and erudition, eh? What will you do first?"

"Plunge right into the silly season."—Winnipeg Tribune.



Peer Vent Heating and Ventilating Units. The Peerless Unit Ventilation Co., of Long Island City, N. Y., has recently issued a booklet of 64 pages, describing and illustrating the Peer Vent heating and ventilating units for schools and public buildings. This unit system of heating has the advantages of economy, flexibility, and convenience and fully meets the requirements of the various state codes for the ventilation of school buildings. The unit is remarkably compact, being only 36 inches high and 14 inches deep, and is designed to fit under a window, without obstructing light or interfering with the use of the window. Semi-concealed units may also be obtained when desired. In this case, the unit is set into the wall of the room, so that the front of the unit is flush with the wall, and occupies no space whatever in the room.

Four standard types of control are available for the Peer Vent Unit system, and galvanized iron wall boxes for air passages are furnished as standard equipment with stationary louvers and stamped steel grilles.

The booklet gives directions for laying out the Peer Vent system of heating, and offers all important engineering data and details of standard Peer Vent Unit. There is a table of desirable inside temperatures for schools, a table of measurements of rooms and area of two-pane windows, also B. t. u. tables for heating and ventilation, capacities of mains and risers, chimney capacities, flue diameters, and standard data for measurements of circles.

The booklet will be sent to any school official or school architect upon request.

Albert Pick Issues New Catalog. Albert Pick & Company, of Chicago, has just announced a new special sale catalog for January and February, showing a number of bargains in cafeteria equipment and supplies.

Coincident with the issuance of the catalog, the firm announces the consolidation of the Albert Pick Company with L. Barth & Company, of New York, thus combining in one large firm two leading hotel, restaurant, club and institution outfitters of the east and west. The two companies will continue to do business in their present territories and will be managed by the same experienced men who have brought them to their present growth.

Issue New Catalog of School Maps and Globes. The Denoyer-Geppert Co., of Chicago, Ill., has just issued its new catalog for 1925-1926, showing its school maps, globes, pictures, and charts.

The firm which was founded in 1916, has grown in scope and prestige until it is now one of the youngest but most progressive and fastest growing of the reliable school map houses.

The present catalog announces a new series of physical maps already nearing completion, to

be followed by a large group of supplementary history maps. The catalog serves two purposes: (1) to describe and explain in detail the new maps for effective geography and history teaching; (2) to index and list a most comprehensive map collection to which one may go to find a certain type of map of a given area for a specific need. It lists political maps, wall maps, history maps, bible maps, pictures, and atlases, outline and relief maps, globes, dictionaries and other books of a similar nature.

A copy of the catalog will be sent to any school official upon request.

Teaching American History in the Schools. The Denoyer-Geppert Co., of Chicago, Ill., has recently issued a 24-page booklet, entitled, "Teaching American History Successfully in Elementary and High Schools."

No study is so vital to the children of our country as the history of the United States, the land in which we live. The new world conditions under which we live also make it urgent that the young American-to-be, the child of the newcomer to this country, should be told the story of the country, and how it came to occupy the present place as one of the world's great nations.

This new booklet describes in detail the celebrated Hart-Bolton American history wall maps and gives in connection with each map helpful suggestions as to the use of the map in the classroom. The map makes clear the significance of the causes, the movements, and the tendencies of American history and points to the dynamic forces which have made the country great, and which will make it greater.

In making up the series, the editors have kept in mind the fundamental principles of the political geography of the country, including the physical background, development of the colonies, trade, commerce, and transportation, modern tendencies and protectorates, and the geography of slavery. Such historical events as the revolutionary war, the Louisiana Purchase, the ratification of the constitution, the civil war, territorial acquisitions, and the establishment of land and water routes are taken up.

Univent Manufacturers Grow. The Herman Nelson Corporation of Moline, Ill., manufacturers of the well-known Univents and other heating specialties, has recently enlarged the capital of the corporation. The stock of the firm is now sold on the Boston Exchange and will promptly be listed in New York. In addition to Univents, the firm manufactures a new type of copper radiator and sells special devices for heating and ventilating systems. The officers and management of the concern remain the same.

Safety First Pictures to Color. Sixteen pictures in envelope. Hall & McCreary Co., Chicago, Ill.

PUBLICATIONS RECEIVED

A Study of Credit Unit Costs of Teaching in Long Beach, Calif., for the school year 1924-1925. Ernest P. Branson, director department of research. The data for the study was obtained from the reports of teachers' marks submitted at the end of both semesters, 1924-1925, from payrolls and from a study of the teachers' programs. In discussing the subject of unit costs, the Long Beach Polytechnic high school's table of cost data was used for purposes of illustration. The report points out that there are seven or more places where an explanation may be sought for differences in costs among the departments. It discusses factors in department costs, costs of instruction, per credit cost of teaching, and gives a brief description of methods.

A Handbook of Financial Accounting for Schools. By John G. Fowlkes, University of Wisconsin. Published by the Eau Claire Book & Stationery Co., Eau Claire, Wis. The pamphlet is the result of a special study of the needs of local school systems in Wisconsin regarding a system of financial accounting for schools. The pamphlet discusses accounting for school moneys, classification of expenditures, definitions of terms used, and includes a bibliography on school accounting.

Statement of Policies and Manual of Business Procedure, Records and Accounts for Junior and Senior High Schools, Des Moines, Ia. Procedures for the conduct of high school activities as set up in the various sections of the circular are not materially different from those which have been gradually developed during the past five years. The present revision and enlargement contains a more complete statement of policies and a refinement of accounting procedures.



THE ENGLISH VIEW!

"Tell me, Miss Newham, was it Cabot or Columbus that noticed America first?"—Punch.